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The Motion Picture in Its Economic and Social Aspects

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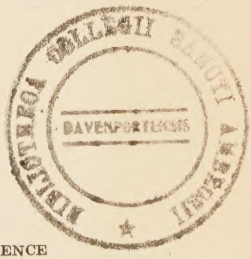

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The Motion Picture

By Terry Ramsaye
Author of *A Million and One Nights—The History of the Motion Picture*

THE history of the motion picture begins with the origins of human expression. The real story of the art is as old as the race and its desire to re-create events to pleasurably re-enjoy the emotions inspired of the events. The motion picture is a basic art and in the sense of being a visual re-creation of the desired event, it is more fundamental in character and import than the arts of pageantry, ritual, the drama of the speaking stage and the art of the printed and spoken word, to all of which the motion picture is directly and genealogically akin.

It is rather clear that there is a certain atavistic element in the motion picture in that it represents the attainment, by the use of tediously evolved tools and materials, of the precise thing that prehistoric man sought in the beginning.

The written language and the arts involving literacy and the use of the word must be understood in their true relation, as make-shift expedients, attenuated, evolved and far removed from their origins, tediously forged out of association and experience in the effort to satisfy the living picture wish, the actual re-creation of the event. If man had been a better picture-maker the evolution of language might well have been indefinitely delayed, and with it all its elaborated art-offspring and word-cultures. The motion picture is by, for and of the primitive.

The cave wall paintings, the prehistoric sculptures, the pictographs, sign languages and their kindred expressions were all endeavors at the living motion picture. The stylus and chisel were too slow, and expression sidestepped into words to get the movement in terms of the active verb. The motion picture wish had to wait until the centuries of technological development brought optics and chemistry to serve. But the coming of the motion picture was inevitable. Its growth formation may be traced out in organic pattern, as obvious and consistent as the structure of a plant from root to leaf. The chain of events and causations is clear and definite all the way from the wall pictures of Dordogne to the white-lighted movie theatre of to-day.

Commercial timidities and misgivings concerning the stability and persistence of the motion picture are trivial vaporings of the uninformed. The motion picture is in fact the oldest, most simple art in the culture of the race. It is broadly founded on basic wishes and as an institution may be expected to rapidly increase its domination, which even now, after a brief commercial development of only three decades, tends to overshadow in terms of patronage all of the older arts. The dominance of the motion picture and its seeming miracles of prosperity are not matters of accident, they are merely the floration of long repressed roots.

The extreme brevity of motion picture experience is the only truly unique aspect of its history. The motion picture differs in its growth pattern from the other arts only in velocity, the swiftness with which phase follows phase. Its opportunity had been ripening through the ages. The screen was long over-due, hence the extraordinary effulgence of its early period of development.

The one amazing fact is that in the motion picture alone has an art form sprouted and grown to complete floration within a single generation. It has been possible for one man to stand by and see the motion picture emerge from the laboratory and unfold into a world institution of surpassing importance. The sensational compression of motion picture development is to be realized when we consider that the art of the drama is older than measured time, that the origin of the book is lost among the scrolls of antiquity and that the art of printing dates back at least half a millennium. The motion picture screen began only yesterday, in the year of 1896.

THE BEGINNING

In the writings of the ancients as early as Aristotle's day we can find wisps of ideas in a groping toward the motion picture. When we come to Leonardo da Vinci we find his "Trattato della Pittura" laden with the living picture wish, and records of sundry experiments aimed at a light-recorded image of what his eager eye saw in nature. And again presently in the Rome of 1640 there is Athanasius Kircher, a Jesuit from Geiss, the modern Hesse-Cassel, demonstrating his *Magia Catoprica*, or magic lantern, before an audience of marveling nobles. Kircher projected crude hand-painted images of the Devil, star of the religious ritual drama of the era, on the wall of a darkened chamber by the light of a smoky lamp. It was a crude beginning, but not nearly so far removed from the screen of to-day as Gutenberg was from the Mergenthaler linotype.

Science still had a long way to travel before photo-chemistry was to replace the hand-drawn slides of the Kircher invention. About 1824 Peter Mark Rôget, immortalized for us in his "Thesaurus," then engaged in research on the senses of perception, glanced from his study window in London, to see who might be approaching on the crunching graveled roadway and caught a puzzling glimpse of a passing baker's cart through the slits of a Venetian blind. Each separated fleeting image of the cart, seen as his vision swept the blind, seemingly caught the cart and horse arrested in successive phases of motion. Rôget went to work on the puzzle and some months after appeared before the Royal Society of Great Britain with a paper on "The Persistence of Vision." This was the first scientific inquiry into the phenomena upon which the motion picture illusion of to-day is based.

PHOTOGRAPHY

Rôget's paper inspired study and experimentation by some of the scientists of the period, among them Sir John Herschel, the great Michael Faraday and many another, each contributing a mite toward the accumulation of lore from which the screen was to come to flower. Over on the Continent, Joseph Ferdinand Antoine Plateau, at the University of Ghent, about 1835, brought forth a twirling disc device which he named the Phenakistoscope, whereby a freize of hand-drawn figures around the rim could be seen as a single figure in apparent motion when viewed through a twin disc with a system of slits. Almost simultaneously Simon Ritter von Stampfer in Vienna arrived at a similar device. From these little machines came the toy invented by William George Horner of Bristol as the Daedaleum, subsequently manufactured in France as the now familiar Zoetrope, or Wheel of Life, of the toy shops. In 1853 Lieutenant Baron Franz von Uchatius, of the Austrian army, in Vienna wedded the magic lantern to the Daedaleum, producing what was in effect a projecting Zoetrope.

The moving picture could now be projected on the wall, but it still depended on the eye and hand of the artist for the process of record.

But in France since 1829, when Louis Jacques Mandé Daguerre and Joseph Nicephore Niépce entered into a contract of research, photography had been on the way. Daguerre was a painter, like Leonardo, seeking a scientific method of record to attain a maximum of realism in his pictorial recreation of events. Photography arrived presently, taking picture-making out of the fallible hands of the artist.

ATTEMPTS AT MOTION IN PICTURES

By 1860 photography had progressed to reasonably short exposures but yet not fast enough to record objects in motion. In that year Coleman Sellers, Jr., a mechanical engineer, set about contriving a living picture record of his two small sons. He made a series of time exposures in which the boys assumed poses at sequential points in a cycle of motion, one driving a nail, another in a small rocking chair. These pictures were mounted on the blades of a paddle wheel with which they were rotated in rapid succession past the point of vision. Something of an illusion of motion was obtained. Photography had come to serve the Zoetrope, but in a motion picture sense it was yet too slow. It did not record motion with any greater facility than the artist of brush and pencil. The next tiny step came from the labors of Henry Renno Heyl of Philadelphia, a Franklin Institute acquaintance of Sellers. Heyl applied similarly posed pictures, six successive attitudes of the waltz, pictured on glass plates, to a projecting Zoetrope built somewhat after the idea of Uchatius, with various improvements. February 5, 1870, this device, known as the Phasmatrope, was presented at an entertainment at St. Mark's Lutheran Church in Philadelphia. In this device the labors of Plateau, Stampfer, Uchatius and Daguerre were engrafted and brought to fruition. The motion picture had been attained, complete in every respect save for the instrument of record. The camera had yet to acquire the ability to make the basic record negatives at the speed of the living event. Again there had to be a delay until the evolution of tools should complete the technological equipment.

Out in California, remote and with no connection or contact with these and similar experimental affairs in the East and in Europe, the next evolutionary step was to appear. Leland Stanford, rail magnate, politician and sportsman, got into an argument in the middle '70's with James R. Keene over matters concerning the gait of a race horse and eventually a bet was made over the question of whether or not a horse lifted all four feet off the ground at any point in its stride. Stanford wanted ocular evidence to support his contention. He employed one Eadweard Muybridge, an Englishman who had attained some local fame as a photographer. Muybridge was sent to Sacramento to set about making pictures which should catch Stanford's fast horses in all the phases of their gaits. Muybridge failed. The camera equipment was entirely unequal to the speed requirements.

Stanford grew impatient and turned the problem over to the engineering department of the Central Pacific railway. It was solved by John D. Isaacs, a young engineer from the University of Virginia, who built the chronophotographic apparatus which recorded the horse in motion by the successive exposure of a battery of twelve cameras electrically controlled. Through a curious chain of events

Muybridge eventually enjoyed all of the glory and fame growing out of the invention, while Isaacs, rather unconcerned about this incidental task, went on with his railroading and rose to be the chief engineer of the Southern Pacific and the Harriman system.

REAL MOTION PICTURES

The pictures were made to Stanford's satisfaction and victory in the argument. He showed them to friends everywhere. In Paris Jean Louis Meissonier, an artist famed for his animal paintings, was in controversy with the Academy over animal postures. He heard of the Stanford pictures and seized upon them to support his case. For the confounding of his adversaries he arranged a showing of the pictures on a projecting zoetropic machine somewhat after the design of the Heyl machine. This was the first application of true photographic records of motion to a zoetropic device. At last the true motion picture had arrived. The date was about 1880.

But the device, which Muybridge in his sudden accession to importance christened with the terrific name of the Zoopraxinographoscope, was of closely limited application. It could only portray the motion recorded by a series of cameras, say twelve plates, which could cover scarcely more than the action of a major fraction of a second. Also the projection device was beset with many faults, inherent in the nature of glass plates and the inertia of heavy parts in movement. Studies of animal locomotion pictures by Muybridge made a sensation in the world of painting and sculpture of his day, but there was no real progress toward the motion picture. It was not directly contemplated, and Muybridge and those associated with him were concerned only with problems of the analysis of motion, not its synthesis.

EDISON'S PEEP-SHOW

After Thomas Edison had completed his phonograph and began to explore its capacities, he grew ambitious to complete its record of events. He arrived in 1887 at the notion of making a machine which should be an accessory to the phonograph and record for the eye as the phonograph did for the ear. He was aware of previous attainments in motion photography and cast them and all of their precedents aside. His first effort at a motion picture machine was a phonograph cylinder device on which the pictures were recorded in tiny circular images laid down in spiral courses, like the sound record. He abandoned this method because of problems of magnification. He then conceived that a method must be found for feeding the pictures into the camera on a belt or tape. Experimental films made by drying collodion varnish on glass, stripped off in sheets, were made. This material was fragile and inadequate but it sufficed to indicate the value of the principle. Various products were tried. In August of 1889, George Eastman, seeking a similiar material for the purposes of "roller photography" upon which the success of his kodak depended, began the manufacture of a photographic material with a flexible nitro-cellulose base. Edison sought a sample of this and found it the solution of his difficulties. By October 6, 1889, hardly two months later, the first model of the Edison Kinetoscope, the parent machine of the modern motion picture art, was demonstrated at the Edison laboratories in West Orange. It was a peep-show, a little black box into which one spectator at a time could peer at a running film, magnified by a lens and illuminated by an electric light behind. The machine had a total capacity of about fifty feet of film. The film was approximately

one inch in width and presented sixteen frames, or separate images, per foot, running at the rate of about forty-eight images a second, or three times the modern rate of film movement. The Edison standard size, which was determined in 1888, before the film became available, became and remains the world standard to-day. The length, fifty feet or less, was predetermined by the fact that the raw material, the photographic film, was supplied by George Eastman in that length, which was governed by the dimensions of the tables upon which the film solutions were poured in the process of manufacture. For the time being fifty feet, or about a quarter of a minute of film time, was ample for the purposes of the camera and peep-show.

Edison's first tentative efforts at projection of the picture on a screen had not attained a very satisfactory result and he was not markedly interested in the attempt. The peep-show picture did render a fairly satisfactory presentation of motion. It was finished and pushed away in a corner, not an affair of any large importance in Edison's mind just then.

The motion picture had gone as far as it could go until the impetus of commerce and service of the public should come to put exploitation behind it. The peep-show Kinetoscope waited there for opportunity.

LETTING THE PUBLIC IN

Thomas R. Lombard, connected with the North American Phonograph Company and its merchandising campaigns, chanced upon the Kinetoscope on a visit to West Orange, and won from Edison a reluctant agreement to let it be commercially introduced to the public. The opening of the Columbian Exposition at Chicago was at hand and the plan was to startle the world with the living picture there. But Edison did not get around to the production of the machines in time, so the first film show in the world was at the Kinetoscope Parlor at 1155 Broadway, in New York, opening April 14, 1894. The method of presentation followed closely upon that of the phonograph, which was presenting slot machine entertainment in song hits in arcades and improvised store room exhibitions called phonograph parlors. Machines and films were sold outright by the Kinetoscope Company, conducted by Norman C. Raff and Frank R. Gammon, friends and associates of Lombard.

The Kinetoscope subjects were bits of variety show acts, the feats of acrobats, dancers, trained animals and the like. The Kinetograph, as the camera was called, was a heavy immobile mechanism, anchored to the Edison studio at West Orange. It could picture only the action that might be brought within its narrow range.

The Kinetoscope exhibitions had been in progress but a few weeks when Gray Latham, a drug salesman, and his brother Otway, both young men from Virginia, were showing the town to Enoch J. Rector, a schoolmate, in New York looking for business opportunity. They were inspired to the notion of an amplified Kinetoscope with sufficient capacity to show a whole round of a prize fight.

It is interesting to find thus the primitive instinct for combat making the first important contribution to the content of the motion picture. The project was eminently successful. The Lathams, with Rector and Samuel J. Tilden, Jr., formed the Kinetoscope Exhibition Company and obtained a specially made type of machine from Edison, reaching a capacity of 150 feet of film. They produced a fight picture enacted before the camera by two lesser lights of the prize ring, in six

rounds. Six machines were used to show the films, a round to a peep-show. The project was successful and led to a more ambitious effort in a picture of a fight between James Corbett and Peter Courtenay. Corbett was placed under an exclusive picture contract, which may be termed the first star contract in film history.

EFFORTS AT PROJECTOR MACHINES

But the peep-show machines could entertain only one patron at a time and the Lathams were impatient. They had a vision of coupling the Kinetoscope with the magic lantern to cast the pictures on a wall and thereby earn admission price from a whole audience at one run of the films. They appealed to their sedate old father, Professor Woodville Latham, a chemist and engineer, a teacher of science, and in the days of the Civil War the ordinance officer in charge of the great Confederate arsenal at Columbus, Georgia. Major Latham inspected the machines casually and averred that the problem of projection could be solved. The Lathams equipped an experimental workshop where the father directed the efforts of the workmen, recruited by the sons, with subsequent complications, from the Edison staff at West Orange. For a time William Kennedy Laurie Dickson, who had been Edison's chief laboratory assistant in his motion picture labors, was associated with the Latham project.

Sunday afternoon, April 21, 1895, Major Latham demonstrated a motion picture projection machine at his laboratory, 35 Frankfort Street, New York. On May 20, following, the Lathams opened a motion picture screen show to the public in a store room at 150 Broadway, displaying scenes from the Corbett-Courtenay fight. The machine was highly imperfect in principle and performance, but it was a beginning.

Edison was the while resisting the pressure brought on him by Norman C. Raff and Frank R. Gammon of the Kinetoscope Company, seeking a projection machine. A profitable business was growing from the sale of the peep-show Kinetoscopes and Edison did not want to disturb it.

Meanwhile many men in many widely separated places had been infected with the idea of screen projection of the motion picture. The Edison Kinetoscope had been scattered over the world and showmen were demanding "life size living pictures."

In France Louis Lumiere, manufacturer of photographic materials, discovered the Edison Kinetoscope and put himself at the screen problem, evolving the Lumiere Cinematographe, demonstrated in January of 1895 and exhibited to the public in Paris December 28, 1895. In London Robert W. Paul, maker of scientific instruments, inspired by the Kinetoscope, built a projector late in 1895, exhibiting it in February 1896.

The most important of all the projection efforts was in progress in the workshop of Thomas Armat in Washington, D. C., where he was assisted for a time by C. Francis Jenkins. In June of 1895, working with Edison films like the rest of the screen inventors, Armat arrived at the basic principle of successful projection, an intermittent motion for the film, giving it a period of rest and illumination in excess of the period of movement from frame to frame. In September he exhibited a fairly successful machine at the Cotton States Exposition at Atlanta. His machine came to the attention of Raff and Gammon, who after many negotiations arranged to put it on the market as the Vitascope, under Edison's name. This peculiar expedient was a tribute to the trademark value of Edison. The previous projectors offered in the Unit-

d States were unsatisfactory and the world was looking to Edison for a perected projector. The Vitascopes were manufactured at the Edison plant in West Orange. This machine went to the public in a showing at Koster & Bial's Music Hall, in Herald Square, New York, the night of April 23, 1896, marking the real beginning of screen history for the United States.

The Vitascope was offered to the amusement market on a state's right or territorial basis. Foreign machines, most conspicuously the Cinematographe, began to spread over the world market and to invade the United States. Various infringing domestic machines arose and the territorial purchasers of the Vitascope began to ignore their boundaries. Chaos threatened even before there was the beginning of a commercial foundation.

William Kennedy Laurie Dickson, whose association with the Lathams had been shortlived, joined with H. N. Marvin, an electrical inventor, E. B. Koopman, a promoter, and Herman Cassler, a machinist, in the K. M. C. D. Syndicate from which came the Mutoscope, a peep-show machine using a cardwheel instead of film, and the American Biograph, a projection machine using a wide film of about eight times the area of the Edison standard. The K. M. C. D. processes carefully avoided every specification of the Edison patents by as wide a margin of differentiation as possible. The Biograph was presented to the public at Hammerstein's Music Hall in Broadway, New York, in November, 1896. While technologically of no revolutionary importance, it was destined to shape the whole course of screen development.

THE PATENTS WAR

In December of 1897 Edison set about a defense of his patents on the motion picture, machines and film, instituting a long series of suits for injunction. The new-born industry was then plunged into a series of legal wars which hampered the development of the industry for a decade. The American Mutoscope and Biograph Company, entrenched with skillful technicians, skillful lawyers and financed in downtown New York, was more successful in defensive and counter offensive tactics than the other litigants. The patents war narrowed to a bitterly fought struggle between Edison and the Biograph.

TECHNICAL IMPROVEMENTS

Meanwhile technical progress was being made by halting steps. Enoch Rector, having withdrawn from associations with the Lathams, who faded from view with the failure of their projects, pursued the prize fight picture project ambitiously. He contemplated recording a whole long ring battle for the screen. This led to a considerable extension of the capacities of the camera, permitting the use of long films. The chief factor of invention was in the application of a loop-forming device to supply slack film to the intermittent motion of the camera, relieving the supply roll of strains which led to breakage. This device was known as the "Latham loop," having originated, for camera purposes, in the Latham shop. The camera was now enabled to make motion records of unlimited length.

Seeking to evade the general piracy of the motion picture business of the period, Rector built a camera of a new film standard, about one and a half inches wide, naming it the Veriscope. He was in possession of the Corbett contract, acquired from the Latham concern. With the Veriscope, Rector pictured the world's championship fight between James Corbett and Robert Fitzsimmons at Carson City,

Nevada, March 17, 1897, exposing the amazing total of 11,000 feet of film, producing by far the longest picture that had been made.

The practises of the period are well indicated by the ingenious expedient of Sigmund Lubin of Philadelphia, a dealer in optical goods then venturing into motion pictures. Being unable for many obvious reasons to avail himself of the Rector Veriscope pictures, Lubin using an "outlaw" camera proceeded to employ two freight handlers to re-enact the fight, blow by blow and round by round, as reported in the newspapers. This was put on the market under the imposing title of:

THE GREAT
CORBETT-FITZSIMMONS FIGHT
(In Counterpart)

It was the prize fight which gave the motion picture camera the ability to record events through a long period of action.

Close on the heels of combat, expressed in terms of the prize fight, came religious exploitation as a motion picture influence, tending to explore the capacity of the camera.

W. B. Hurd, incidentally connected with the Lumiere interests, arrived from Europe in 1897, offering the right to photograph a version of the Passion Play enacted at the hamlet of Horitz. He negotiated with Rich G. Hollaman, of the Eden Musee in New York. The Eden Musee was the most important institution showing motion pictures. It was chiefly devoted to wax works and sundry awesome and perplexing novelties. The proposition slipped away and was snapped up by the theatrical firm of Klaw & Erlanger, which outfitted a photographic expedition to Horitz to record the Passion Play. Hollaman, piqued and not to be defeated, viewed the Horitz picture at its try-out showing in Philadelphia and hastened back to New York with a competitive project. Using a long abandoned play script by Salmi Morse and a cast of Broadway actors, he produced a synthetic version of the Passion Play on the roof of the Grand Central Palace in New York, with painted backgrounds and stage properties. The picture was offered as a record of the original and authentic Oberammergau Passion Play, until it was exposed as a stage fiction by the *New York Herald*, incidental to a press notice on the rival Horitz picture for Klaw & Erlanger.

The Hollaman Passion Play picture was three reels in length. It was a precedent and departure in motion picture making in that it embodied an event staged and arranged in behalf of the camera. All previous pictures were mere records of events ordained and arranged for other purposes. Creative art was coming into the motion picture. Several copies of the Hollaman Passion Play went into circulation in exhibitions in the principal cities of the East. But the picture had no immediate influence upon film production.

In a broad sense the camera remained for that day a mere instrument of record, covering events of current interest, street parades, bits of novelty and world wonders like Niagara Falls. The chief avenue of the pictures to the public was through the variety or vaudeville theatres. The motion picture machine, with films and operator, was booked as a turn or act. The standard unit of film production, the reel of about one thousand feet in length, was determined by the requirements of the vaudeville bill. The pictures had to occupy about the average time of a turn, approximately twelve to fourteen minutes. The capacity of the projectors was built to meet the time requirement.

The legal conflicts continued. The inor makers of pictures were more arked by their fleetness of foot in the vasion of process servers than in any her ability. Production of pictures as entirely in the hands of camera- en, who were usually graduates of ie experimental shops of the machine akers, or bicycle repairmen. Their stes and standards were faithfully flected in the product.

The first faint whimper of censorship me from Atlantic City, when some nknown spectator protested to the olice about the showing of a film of olorita's Passion Dance in a peep- ow Kinetoscope on the Boardwalk 1895. The Passion Dance was an ternational favorite. Its flickering ty feet depicted a hypogastric ythm imported from Cairo for the orld's Fair at Chicago.

The novelty of pictures that moved rly began to wane and they were ansplanted from the headline act to e end of the vaudeville bill as chasers" to clear the theatre at e continuous performance houses. ie coming of the Spanish-American ar in 1898 gave the films, with their enes of waving flags and marching roes, a little flash of new interest.

The pictures were, however, in a fair ay to pass from the theatres when a w step in the art came to their rescue th a contribution of novelty, about 00. George Melies in France, a agician of the Theatre Robert Houdin, d adopted the motion picture for its ssibilities in feats of mystification. e evolved many tricks of the camera, ig since commonplaces of studio actise now, presenting pictures of ntastic imaginative character. The elies magic pictures included two ecially pretentious offerings, "*Gul- er's Travels* and *A Trip to the Moon.* elies' advertising points the element advance registered in his product. It was his boast that he originated the idea of photographing *artificially arranged scenes.* Melies had many imitators and his films were ruthlessly pirated by all of the American picture-makers, by the simple process of putting an original film through a printing machine with negative stock producing a duplicate or contra-type negative from which unlimited copies could be made. This was a general practise in the early years of the motion picture when there was no copyright protection and no legally recognized value attached to any picture by reason of its content.

DISCOVERY OF THE STORY PICTURE

Once again the prize fight, serving the old primitive combat instinct, inspired the motion picture to a technical advance. The promoters of the Jeffries-Sharkey match at the Coney Island Athletic Club arranged with Biograph to endeavor the unprecedented feat of making a motion picture at night under lights. The evening of November 3, 1899, with 400 arc lamps over the ring, the battle was recorded by the camera. It was a success and the motion picture art had proved its independence of the sun. This was the last important contribution of the combat impulse to the screen art. Progress henceforward was to be measured by the camera's quest of more complex thrills and sex.

Biograph, following up its Coney Island experience, abandoned its roof-top daylight studio in 1906 and established a plant illuminated with Cooper-Hewitt mercury vapor tubes. Other producers soon followed. To-day all important production is under lights in studios independent of skies or weather.

The next significant departure in film production arrived in part by accident and in part by accretion of experience. Edwin S. Porter, a

cameraman employed at the Edison studios, had long observed the audience value of thrill scenes, more especially fire engine runs, rescues and the like. He hit on the notion of threading a collection of such scenes together on the thread of a story, solely that he might have a new excuse for again picturing the time-tried and test-proven screen materials. His picture, *The Life of an American Fireman*, was the first serious and extensive effort at narration of a story of realism in the films. The plot was perfect. It presented a sleeping fire chief, dreaming of home, wife and the baby, awakened by a midnight alarm and racing to the fire arriving in the inevitable nick of time to rescue his own child. The picture was a marked success.

Porter decided to try again, proceeding by the same method of synthesis. Next to the fire apparatus the best known screen thrill had been pictures of fast trains, with their engines shooting by close-up. Therefore he would make a train story. *The Great Train Robbery*, produced in the autumn of 1903, set the motion picture world afire. It was for its day and in relation to its opportunity the greatest sensation that the screen has seen. It was one whole reel in length. The "story picture" had been discovered. Showmen took to the road and traveled *The Great Train Robbery* from city to city and deep into the hinterlands. Many hundreds of copies of it were sold by Edison, and many hundreds of others by the film "duping" pirates.

Porter and the other picture-makers plunged into the making of "story pictures." The camera had at last learned narration. It reached out for dime novel copy and the art of the photoplay was born. *The Great Train Robbery* was followed swiftly by *The Great Bank Robbery*, in the course of the production of which Porter found himself under pistol fire in a New Jersey village street because the alarmed citizenry did not understand the business as make-believe for the camera. Biograph hastened to adopt the new production policy with a picture entitled *Personal*. The story involved the adventures of a "masher" who advertised in the personal column of *The Herald* his desire to meet a blonde at Grant's Tomb. Most of the action was concerned in mob pursuit, thereby laying the foundation for the chase motif of picture-making. The next Biograph effort of importance was *The Moonshiners*, in which a terrific hand-to-hand fight was enacted by Wallace McCutcheon and Harold Vosburgh, discovering for the screen drama the large value of combat and broken furniture.

REAL ESTATE VENTURES IN MOVIES

As early as 1901–2 there had been tentative efforts at permanent motion picture exhibitions or "electric theatres," but the slight and inconsequential nature of the films did not well support such enterprises. With the coming of the "story picture" the screen had something to say. It was capable of maintaining sustained interest.

In the autumn of 1905, John P. Harris of Pittsburgh, Pennsylvania, managing real estate properties for Harry Davis, found himself with an idle store room on hand, near Smithfield Street and Diamond Alley. Having an excess of equipment available from the storage rooms of the Grand Opera House, a Davis property, he decided upon an experiment in picture exhibition. With *The Great Train Robbery* as his entertainment, he opened a picture show in the store room, at a five-cent admission for the quarter-hour program. It was Thanksgiving

week. The little theatre proved tremendously profitable. It was the point of origin for the wave of nickelodeon film theatres which now swept the country, rising by the hundreds in the next few months, in Chicago, New York, Cincinnati and like centers of concentrated population. Penny arcades, which had been devoted to presenting phonograph renditions of popular songs, peep-show pictures and fortune-telling machines, were swiftly converted into screen theatres, and vacant store rooms, with the addition of tin fronts and sets of undertakers' chairs, became "Lyrics," "Bijou Dreams," "Fairylands," and "Comiques." Less than five hundred dollars in cash or credit made a film showman and equipped him. The retail personnel of the new business was recruited from among the small tradesmen of the districts where the films found opportunity. This again was to prove a fact of far reaching influence on the motion picture. From these minor tradesmen and arcade operators the process of selection was to give us the masters of the motion picture of to-day and from this beginning the motion picture was to take a cultural keynote which promises to dominate it indefinitely, and probably forever.

FOREIGN INFLUENCE ON PICTURE CONCEPTS

Certain ethnic and social aspects of this situation at the birth of the screen theatre must be considered. Since 1885 the United States had been importing cheap labor from the Mediterranean countries and the Slavic regions, in the upbuilding of the vast American industrial machine. The great concentration of this foreign labor, in a polyglottic melting pot, was in the iron and coal region of Pennsylvania, centering in Pittsburgh. Too poor to import or support their varied national arts, theatres and literatures, and often too lowly in culture to enjoy these arts had they been available, these polyglottic aliens offered a ripe opportunity for the art of the motion picture with its simple, basic, direct and obvious narratives, embodying no linguistic difficulties and no problems of intellectualization. From this soil of opportunity the motion picture theatre sprang, and spread to like regions, into the foreign and labor quarters of the great industrial cities, before it began to extend more slowly into the more American hinterlands.

The service of this audience, by the trial and error process, ordained for the motion picture its production policies for all the years ahead. These aliens came chasing rainbows and seeking the land of gold and promise. They came to see Indians and cowboys and all the excitements the steamship posters had proclaimed to them at the foreign emigration stations. The motion picture set about delivering the desired goods. The motion picture could make their dreams come true with splendors, and thrills and excitements. The films were made for them, an American-born art nurtured on the tastes, codes and cultures of an imported labor population.

Reposing in these facts of origin the reformers and critics of the motion picture may find their answer to the puzzles presented by the persistence of many questioned aspects of the motion picture industry. Here we may discover how and why "continental standards" have infected all America, through films carrying amusement made for our industrial alien islands of population out into our own wide commonality.

The prosperity of the film trade, growing out of the swiftly increased demand at the dawn of the nickelodeon era in 1905, forced the building of stu-

dios, the employment of directors and the construction of producing plants of larger capacity. The little roof top studios and the casual picture-making of itinerant cameramen no longer sufficed. Also commercial pressure tended to force some sort of a peace into the unending patent litigations.

PEACE AND CONSOLIDATION MOVEMENT

The Biograph concern had been strengthening its hand against Edison by the acquisition of the Latham patents and a control of Thomas Armat's projection machine patents. The battle grew sharper as the years went on and Biograph, although strategically in a strong position, had exhausted its financial resources in the wars by mid-summer 1907. The Empire Trust Company, holder of Biograph mortgage bonds, sent Jeremiah J. Kennedy, an industrial executive and efficiency engineer, to investigate, and, if need be, to liquidate. Kennedy decided to keep Biograph alive and fight the war to a finish. The end came with a peace on December 18, 1908, whereupon with Biograph and Edison in equal positions of leadership, the Motion Picture Patents Company was formed, taking in all of the makers of motion pictures then active in the United States. It was in effect a cross-licensing system, a compromise for purposes of profit. There were ten producers.

The exchanges or film libraries from which the pictures were rented to the theatres were put under a license system, and in turn theatres were licensed to use the patented projection machines —with licensed film only. George Kleine, of Chicago, the world's largest film distributor of the period, was one of the more important factors in evolving this method of bringing the chaotic business under discipline. He personified the automatic control always exercised by business expediency.

Quickly following the formation of the Patents Company, Kennedy engaged in a campaign for getting control of the distribution machinery, or the exchanges, of which there were about one hundred in the United States and Canada. Some fifty-eight of the major exchanges were purchased by the General Film Company, largely with stock and notes to be met out of profits. The endeavor to buy the distributing machinery out with its own prospects was almost entirely successful. Objectors to the method got their licenses cancelled and their film supply suspended. Tremendous wastes in distribution, duplications of selling effort, overlapping shipments and the like were eliminated, all to the profit of the General Film Company and its ally, the Patents Company.

ACQUIRING ART TECHNIQUE

The art of the photoplay in this period was acquiring a real technique, most notably under the leadership of David Wark Griffith, Kentuckian and actor, employed by Biograph and early promoted to directorship. Griffith brought a considerable stage experience to the motion picture and a flair for constructive experimentation uncommon to the actor type. Under Griffith the previously discovered or invented tricks of the camera, the close-up, the dissolve, the fade-out, the cut-back and such optical items, were fitted into the syntax of the screen and given a new importance as tools of the picture narrator.

Stars were yet unknown. Although the motion picture had the precedents of the stage of centuries before it, the commercial value of the exploitation of personalities was not yet discovered. The most famous screen player of the

day, Florence Lawrence, was known to the rest of the motion picture world and its audiences only as "The Biograph Girl."

Under the Griffith régime, Mary Pickford, then a girl of sixteen, joined the Biograph organization as a player in 1909, laden with her juvenile experience in road show melodramas, and became an important contributor to the motion picture both in terms of personality and picture material.

SECOND PATENTS WAR

There were early uprisings against the iron handed control of the Patents Company and the aggressions of its General Film Company. The anti-trust exchangemen soon became openly "independent" and at war. Their exchanges created a demand for independently produced films and large imports of foreign pictures. A new race of "independent" picture-makers arose and a new patents war began.

An early leadership among the Independents centered around Carl Laemmle, a haberdasher from Oshkosh, Wisconsin, who had entered as a nickelodeon proprietor in Milwaukee Avenue in Chicago's dense West Side, extending his interests into a system of film exchanges covering many cities. John R. Freuler, a Milwaukee real estate operator, controlling another extensive exchange system also "went Independent." William Fox, a New York cloth sponger with a typical history of progressions from arcade to theatre to exchange, entrenched in New York with important legal and political connections, including Tim Sullivan of Tammany Hall, fought a court war with the trust and compelled film supply under injunction, while the others went seeking "Independent" sources.

Laemmle engaged in film production with the Independent Motion Picture Company, with the famous trademark of the "Imp," and raided Biograph for Florence Lawrence, that he might advertise that "The Biograph Girl is an Imp now!"

The star system, the exploitation of personality, began thus. Names began to appear on the screen, as weapons in the trade war. Names became trade-marks, the only trade-marks that have ever had a value in the film industry.

The Independents gathered for mutual protection for a few months under the loose federation of the Motion Picture Sales Company, their combination against the trust. The throat cutting and internecine strife in the Sales company started at once. Early in 1912 it was disrupted and John R. Freuler, with Harry E. Aitken, an associate, formed the Mutual Film Corporation, taking in a considerable number of Independent exchanges. Soon thereafter Laemmle and his interests formed the Universal Film Manufacturing Company, linked with a system of allied exchanges later acquired by the corporation.

VICTORY FOR THE INDEPENDENTS

This put two major groups of Independents in the exploitation field against the Patents Company combine and from thence forward the history of the motion picture became largely a commercial story. Injunction fights continued, often threatening to extinguish the Independents, but never suppressing their persistent activity. The application of the license system to the theatres of the retail machine at its maximum covered about sixty per cent of the houses. Ultimately the Independents triumphed with an anti-trust decision against the Motion Picture Patents Company and the General Film Company, but the real Inde-

pendent victory was won years earlier in the practical field of commercial fact. The picture-makers of the Patents Company group, filled with a false sense of security in possession of what they thought was a monopoly of technique, and fattening on tremendous profits, failed to develop their product. The Independents, battling for existence, carried the photoplay forward to new standards of attainment and by a better service to the public took the business.

The advance opened up by Mutual and Universal was followed by a rapidly increasing array of Independent picture-makers and distributors and adventurers on the fringe of the field. The standard unit of service to the theatres was a program, made up of a selection of a given number of reels a week, divided by the days of the change of program, usually a daily change. The program averaged about four reels a day for seven days, or twenty-eight reels a week. The sole standard of value was the age of the film, regardless of quality or content. No picture sold on its individual merits. The individual producers who contributed to the distributing companies' programs had no special incentive to effort at betterment of their wares.

ENTER THE CENSOR

Along with the rise of the photoplay and the theatre came the issues of censorship. Murmurings of objection began as early as 1896 over Dolorita's Passion Dance and the May Irwin-John C. Rice Kiss, a photographic excerpt from a Broadway play entitled the *Widow Jones*. In 1907 the *Chicago Tribune* launched an editorial denouncement of the "five-cent theatres" and the films. In November of that year a Chicago ordinance placed the films under police supervision and from that date a municipal censorship has obtained in Chicago. Scenes showing the use of revolvers have been barred from the screen in Chicago for about twenty years. In consequence Chicago banditti have taken to the machine gun and light artillery. In New York the Children's Society instituted a regulative movement by the prosecution of an exhibitor for showing pictures of "The Great Thaw Trial" to minors. In 1908, the year following, a real storm broke and the movie theatres were shut down abruptly pending inquiry under Mayor McClellan. The theatres were re-opened after a battle, in which the People's Institute of New York intervened in behalf of the screen. Incidental to this contact the People's Institute, with the special encouragement of the Motion Picture Patents Company group, formed the National Board of Censorship, an extra-legal body of impartial censors who passed on the pictures. This acted as a foil against the many local agitations and contributed not a little to the betterment of the pictures. The National Board of Censorship continues in operation to-day, with its name modified to the National Board of Review of Motion Pictures, to avoid further promulgation of the idea embodied in the word *censorship*.

Censorship and its effect upon the motion picture art and industry as a whole has been of much less importance than would appear from a superficial consideration of the spectacular activities of the exponents of the censorship movements, or the loud proclamations and protestations of the picture-makers. The effects of censorship are scarcely discernible on the screen in the product itself. Sectionally various municipal and state censorships have exercised some influence, usually destructive in character from the point of view of both the picture-makers and the public.

Censor-editing of motion pictures usually fails of its purpose by the elimination of the film's reason for existence, if any. In the realm of ideas and emotions, censorship has proven much less effective even than endeavors at the enforcement of the prohibitory law concerning alcohol.

The leadership in the censorship movement nationally early fell to the late Reverend Wilbur Fisk Crafts, a minister successively Methodist, Congregationalist and Presbyterian, superintendent of the International Reform Bureau, Washington, D. C., who advocated a national censorship law, resulting in congressional committee hearings as early as 1915. The Reverend William Sheafe Chase, Canon of Christ Church, Brooklyn, also became early interested in the censorship movement, following up a sequence of like reform movements including the war on race track gambling in New York. Canon Chase continues down to date the censorship movement, which is now incorporated into the Federal Motion Picture Council in America. A number of the bookmakers driven from the race tracks by Canon Chase's anti-gambling crusade in 1908 engaged in the making of motion pictures, with the result that he is still in pursuit of their heirs, successors and assigns. The chase will never end.

The Reverend Mr. Crafts, by a pronouncement of 1920, sought to launch a drive to "rescue the motion pictures from the hands of the Devil and 500 un-Christian Jews," openly stated in press dispatches issued from the National Reform Bureau. This note has been sounded in subsequent censorship literature issued by Canon Chase.

WHY JEWISH DOMINATION

To the impartial observer it would appear that Jewish domination of the motion picture industry is an incident of the inevitable rise of naturally selected leaders for the new industry from among the pioneers of its retail machine. It chanced that in the densely populated foreign and labor quarters of the industrial cities where the photoplay theatre emerged, the minor tradesmen and shop keepers were Jews. These men took on the new wares of the screen and its new opportunities, serving the same people. And being in touch with the motion picture's public, in effect that public's purchasing agent for entertainment, they learned the business through their customers. In terms of the uppermost strata of control, the motion picture industry in the United States is now about ninety per cent Jewish. It may be pointed out in passing, however, that the largest single racial representation in the industry is among the Greeks, of whom there were about 1400 engaged in theatre operation in 1920. The motion picture of the United States is international merchandise, dominating the world market, and it is under the control of the most effective race of born internationalists.

The Mutual and Universal concerns, which represented the chief opposition to the Patents Company group, committed themselves to an almost identical policy of program film production and merchandising. Motion pictures began to strain at their limitations, and, as story-telling technique improved, two- and three-reel pictures began to creep into the programs, tentatively breaking over the arbitrary one-reel limit of the trade unit.

In 1912 Adolph Zukor, a furrier who had stepped into the phonograph and peep-show arcade business in 1903, rising as an exhibitor with the coming of the screen theatre, imported a four-reel picture entitled *Queen Elizabeth*, produced in France with Sarah Bern-

hardt in the title rôle. Zukor had the optimism to hope that a motion picture might be made grandiose enough to constitute an entire evening's entertainment in competition with the speaking stage.

For a short period Zukor operated under the license of the Patents Company, showing his picture in legitimate theatres. Shortly the displeasure and opposition of members of the Patents Company group of manufacturers made it inexpedient for the executive heads of the concern to issue further licenses to Zukor, whom they secretly wanted to encourage to spur their own film makers. Nine of the trust's ten member studio concerns were Gentile, and there was an unrecorded but freely expressed determination to maintain a Gentile control of the industry. In consequence enterprises with Jewish personnel and control were forced into high pressure initiative in order to achieve a foothold in the industry. The picture-makers of the trust, with a false sense of monopoly protection, leaned back and smiled with the assertion, "We have the know-how!" The fighting Independents however knew the customers, and they rapidly acquired players, cameramen and directors away from the licensed studios, bringing the "know-how" with them.

GRIFFITH AND THE "FEATURE PICTURE"

Carl Laemmle of Universal followed up his success with Florence Lawrence by hiring away Mary Pickford, who had risen to fame with the same concern, Biograph. Numerous other players and directors were similarly detached. Edwin S. Porter of Edison's staff, maker of *The Great Train Robbery*, went to the Independents. Zukor bid for D. W. Griffith, who refused a salary of $50,000 a year to go to Famous Players, Zukor's new concern. But the impact of the offer jarred Griffith loose and October 31, 1913, he entered into the service of the Mutual Film Corporation, with an agreement by which he could also produce some big pictures on his own account.

Meanwhile George Kleine, the Chicago distributor, member of the Patents group, imported the imposing Italian spectacle production of *Quo Vadis*, in nine reels, and achieved a box office sensation, playing legitimate theatres.

Griffith's answer to these challenges, by the imported *Queen Elizabeth* and *Quo Vadis*, was the production of *The Clansman*, later re-titled *The Birth of a Nation*, the screen rendition of Thomas Dixon's novel of the Reconstruction period and the Ku-Klux Klan of that day. Griffith's enthusiasm for this story may perhaps have been based on the fact of his Kentucky birth, but it was sheer accident which brought it to his hands in dramatic script form. *The Birth of a Nation* was an extraordinary box office success. It expressed the Griffith technique of picture narration in fullest measure and without stint of scope or expense. Aside from its admitted intrinsic merit, its larger success was insured by the widespread attacks upon it and the racial issues raised by its treatment of the negro. From Booker T. Washington to Charles W. Eliot, president emeritus of Harvard, men in high places raged against the picture and thereby called the attention of the *intelligentsia* to the existence of the screen art, the while adding to the fire of middle class and movie strata interest. The net result was a tremendous profit to the Griffith picture, an impetus to the picture art and a vast widening of the picture audience.

The "feature picture" as opposed to the program film service now began to

rise in importance and with it a new standard of motion picture theatre. The program pictures served nickelodeons in their tiny converted storerooms, but now a supernickelodeon was needed. The opening of the Strand Theatre on Broadway in New York, under the direction of Samuel L. Rothafel, April 11, 1914, marked the beginning of the new era of film presentation and the march of the motion picture toward a real dominance of the amusement world over the speaking stage. Rothafel had begun as a movie exhibitor in the little mining town of Forest City, Pennsylvania, a few years before and developed an art of picture showing destined to lead the whole institution of the screen theatre into a new and higher status. The big screen theatre movement involved investments anew and put the solid, immobile assets of real estate and brick and mortar into the motion picture business, which had been before a transient affair of films and leaseholds.

Meanwhile the World War spreading over Europe in 1914 ended all foreign development of the motion picture and left the evolution of the art and industry entirely to America for years to come. America with a big and war-prosperous public suffered little from the loss of its foreign film market, which had been scarcely one-fifth of its total at the highest point.

STRUGGLE FOR PRODUCER LEADERSHIP

The General Film and the Mutual, after ineffectual efforts to get aboard the new feature film movement, faded from view and a horde of new producing and distributing concerns arose. Each concern, seeking enough output to completely supply a line of theatre customers, a recrudescence of the old program idea, began an amazing line of competitive bidding for stars and directors, driving the salary figures and allied elements of producing costs to new heights.

Hundreds of entirely ineffectual and inadequately equipped concerns entered the market in a period of wildcat promotion, with much consequent loss to investors and damage to the repute of the business. There were endless mergers, consolidations and liquidations and sundry politely camouflaged bankruptcies.

As the chaos of this period began to clear Adolph Zukor emerged dominant, with his Famous Players Film Company merged with the Jesse Lasky Feature Play Company and various minor concerns, absorbing also the Paramount Pictures Corporation, the distribution concern which had taken his and the allied wares to the theatres. Control of the industry has gone successively from the inventors of the Edison era, to the film makers of the Patents Company period, and now to the distributors. Zukor, an exhibitor, had become in turn, producer and distributor. Now he sought something akin to a monopoly of motion picture talent and gathered into the service of his concern, in the years of 1917–8, about sixty per cent or more of all the star value in the world.

Rising against this, under the leadership of Thomas Tally of Los Angeles, an exhibitor, and J. D. Williams, of early picture experience in the United States and Australia, the First National Exhibitor's Circuit was formed, to deal with the stars direct in behalf of the screen, eliminating the producer-distributors. The step was aimed directly at Zukor's control. First National sought and got many of the major stars, including Charles Chaplin and Mary Pickford. A new war was on. Zukor was driven now back to exhibition again to insure an outlet for his product in the key city centers, the

pace-making theatres of the trade. Famous Players-Lasky engaged in the acquisition of theatre control and the exhibition of pictures.

Meanwhile, Marcus Loew, with large theatre interests to protect, and threatened with being caught in the cross fire of the wars, acquired control of Metro Pictures Corporation, then in a declining condition, with a view toward rehabilitating it to produce pictures for his screens. By lucky coincidence, at this juncture a war picture, *The Four Horsemen of the Apocalypse*, from V. Blasco Ibanez's novel, then in production, proved an unexpected and sensational success, vastly enhancing the value and prestige of Metro. Presently Loew absorbed into Metro the Goldwyn concern, another producer of grandiose pretensions and uncertain destiny.

But meanwhile the major screen artists, Pickford, Chaplin, Douglas Fairbanks and D. W. Griffith, escaped from control and launched into another "independent" line of production in United Artists Corporation, which underwent various changes and presently fell into the administrative control of Joseph Schenck, an early associate of Zukor and Loew and continuing one of their close familiars.

WITH THE HELP OF WILL HAYS

Externally the motion picture through this formative period began to acquire a deal of public ill-will by its blundering maladministration of public relations. Many motion picture scandals involving persons of high and low degree in the films broke into the public prints, with tales of gambling, brothel parties, drug addiction, a murder mystery and some that were not mysteries. The existing trade organization, the National Association of the Motion Picture Industry, was without authority within the industry and without standing with the public. But the films were looking for a Moses to lead them out of the wilderness of woes. After consideration of various important names, including Herbert Hoover and Hiram Johnson, the film magnates turned to Will Hays, Postmaster-General, with the laurels of the Harding campaign still fresh on his brow, to lift the movies from their Slough of Despond. Hays was to be their Judge Landis, rescuing the movies from the consequences of their indiscretions in the same manner as the Judge had helped baseball shake off the odium of the bribery scandals. Hays accepted the post and became the head of the Motion Picture Producers and Distributors of America, Inc., the only effective trade association in the history of the industry.

"The Hays office" has been and continues the author of many internal reforms within the industry, among which betterment of the apparent morals of the movies and their publicity is of the least importance. Uniform contracts, arbitration of trade differences and elimination of thousands of petty litigations, international screen diplomacies of vast commercial importance to the United States, and a general soothing of the legislative agitators are among the fruits of Hays' labors.

The tendency toward consolidations and elimination of weaker concerns continues, and with it a tremendous growth of the chain theatre movement, which was given important impetus by the First National combine and the Famous Players-Lasky counter movement. Every important producer-distributor combination is seeking to extend theatre controls and the investment of the motion picture in the theatre plant is climbing to new high totals. The exhibitor, the retailer chains, are eventually to control the production-distribution machinery, but

in the process the masters of production-distribution are taking control of exhibition.

POSSIBILITIES FOR WORLD MARKET

Every month which passes shows the unfolding of new foreign opportunity and development of a world market for pictures beyond any previous calculation. American concerns, notably Famous Players-Lasky, are highly international in character with extending controls in exhibition and production in the major European countries, more especially Great Britain and Germany. While in prewar days the foreign market was at best only one-fifth of the world value of a motion picture, recent exploitations have realized as much as forty per cent of total earnings abroad. The feature picture was evolved and rose with the world in a state of war. The world market for films is just now in the process of being revealed.

The motion picture industry of the world, in all practical considerations, is to be found in the control of about four men; Adolph Zukor of Famous Players-Lasky, Marcus Loew of Metro-Goldwyn-Mayer, William Fox of Fox Pictures Corporation and allied enterprises, and Carl Laemmle of Universal Pictures Corporation.

THE SCREEN AUDIENCE

The motion picture institution is primarily an industry. Its development as an art has been and will continue to depend on occasion, accidental and incidental experimental endeavors without important encouragement from the major interests which are operating a dividend machine. The plain truth is that the art of the motion picture to-day has reached the ceiling of popular understanding, and further elaboration and refinement as a medium of expression cannot increase the screen audience in any proportion commensurate with the increased investment.

The production of pictures for the cognoscenti, the literati and the illuminati, cannot be profitable in terms comparable with the pictures for the masses. The best pictures of to-day, measured by the intelligence of their appeal, are not commercially attractive. Pictures for the *intelligentsia*, in any considerable number, are not likely to be seen for a generation or more, when perhaps competitive conditions and a wider dissemination of technique may make the service of minority audiences interesting to investors. The American motion picture audience of to-day is estimated, with probably a reasonable accuracy, at about 35,000,000 persons. The maximum reading audience for works of moderate intelligence in the medium of the printed word is estimated by publishers at a maximum of 6,000,000. Those figures, no matter what their possible percentage of error, denote simultaneously the audience limitation on the screen as an art and the opportunity for the screen as an industry.

Thomas Edison invested $24,000 in the process of inventing the motion picture. In 1926 the American motion picture investment was estimated at $1,500,000,000.

The Structure of the Motion Picture Industry

By William A. Johnston
Editor of *Motion Picture News*

THE least understood fact about the motion picture business is, strangely enough, the large and basic one that it is an industrial machine. From manufacturer to consumer it functions exactly like the industries of automobiles, clothing, food products or of any manufactured product. The machine works with regular economic rules and under economic laws.

Most people who, for some reason or another, want to "reform" motion pictures, proceed with a conception of the motion picture itself as a great, modern-day agent of education and culture. That is perfectly true. But in order to put a screen picture to-day before the world public that picture must be created out of raw product, wholesaled to a retailer, and sold by him to the public. From beginning to end it must be, of course, a commercially profitable transaction.

So we will consider the motion picture industry here as an economic machine, its size and structure.

The trade of the motion picture is world wide. The American industry is built upon a world market. In this respect it is somewhat unique among American industries. From its very inception its export trade has been a foremost consideration. We shall discuss the foreign field later in this article.

The American industry consists of three economic divisions:

(1) The producer—or manufacturer
(2) The distributor—or wholesaler
(3) The exhibitor—or retailer

First a few fiscal statistics and then we will proceed to a discussion of each of these industrial divisions.

Some Fiscal Facts

The total investment in the American industry is approximately a billion and a half dollars. Of this amount the investment in 15,000 theatres is about a billion and a quarter; in studios and distribution offices about two hundred and fifty millions.

To-day, upwards of 7,000,000 persons attend daily the motion picture theatres of the United States. This would indicate an appeal to at least fifty per cent of the population. With many families the expenditure for motion pictures is a considerable, if unknown, part of the yearly budget. The fact is that the motion picture has become quite generally a necessity, though paid for somewhat loosely, like a luxury.

The average price of picture-theatre admissions is around twenty-eight cents. In the larger cities it will average about thirty-five cents. We can figure, then, on a daily box-office intake in this country of $2,000,000. Taking into consideration those states and localities where theatres are closed on Sundays, we can figure a yearly total for the picture-theatre box office of approximately $650,000,000. This is for the United States and Canada only. The total daily receipts of motion picture theatres throughout the world exceed a billion dollars a year. The American producer supplies at least eighty-five per cent of the pictures shown in the theatres of all foreign countries.

PRODUCTION

The center of production to-day is Hollywood, California—and has been for a number of years. Sunlight and scenery attracted here the pioneer producers. These advantages are not such pronounced factors to-day. Florida, for example, has both. But the production industry has become settled in California and around it have been established studio supplies of all kinds, labor, facilities and, of course, the important element of professional talent. A small army of extras exists, and another of "types," well organized, card-indexed and immediately available. From these ranks new and promising players are constantly being recruited, a very important consideration in picture production for two reasons: first, that the public is hungry for new and vivid personalities, and second, because a limited supply of featured players makes salaries rise to a point at which production profits are jeopardized.

The cost of the average picture (feature) is divided as follows, taking the production dollar as a basis:

Actors' salaries	$0.25
Directors, cameramen and assistants	.10
Scenarios and stories	.10
Sets (manufactured)	.19
Studio overhead (including cutting, assembling and titling of film)	.20
Costumes, gowns, etc.	.03
Locations (rent of grounds and properties and transportation)	.08
Raw film	.05
	$1.00

Stars' salaries, it is evident, constitute a large part of the cost budget. Delays, therefore, in "shooting" the picture are expensive. Even a few weeks overtime may make a picture unprofitable. Hence, everything that contributes to the regular progress of so many scenes per day is highly desirable.

In these competitive days of high cost production, the secret of success would seem to be the careful blue-printing of the picture in advance of the "shooting," or actual studio work where the heavy expenses begin. By blue-printing is meant the transference of the story to its details of picturization and the laying out on paper of the several hundred scenes, indoor and outdoor, in an exact sequence of so many a day.

A number of elements conspire to make production costly and hazardous: weather conditions (if there are outdoor scenes or "locations"), illness of the principals, accidents, inadequate studios, etc. Many visitors at Hollywood marvel at the extensive ground space of the large studio plants. As a matter of fact, expensive as the land is, it pays the large producing companies to have plenty of stage floor space so that there will be no delays while heavy payrolls are going on.

The high salaries paid to stars and featured players have, for some time, created more or less of a public sensation. Most people have simply wondered or doubted; others of a more practical mind have arrived at the conclusion that a business so prodigal should be heavily taxed.

The plain fact is that the price paid for a star's name and services is a hard and fast result of the law of supply and demand. The price of radium is fixed in exactly the same way.

The public wants the stars and will pay several million dollars, we will say roughly, at the box-office. This, the producer figures, will enable him to pay a high salary and still make a profit. Given a number of producers, competing sharply and all figuring to the limit, just as contractors in all lines do, the salary goes up. The fact that it

reaches a figure unprecedented in the show world is simply due to the other fact that the volume of business which the motion picture does is also unprecedented in entertainment annals. The famous stars to-day have even gone beyond the producer competition stage; which is also economic. They did some figuring, too; and decided to be their own producers. They are now in business for themselves.

In the earlier days of feature production there were many producers. To-day the business is largely consolidated and the large, modern studio plant is a complex affair of many departments and heavy current expense.

The most recently built studio in Hollywood cost $2,000,000 and comprises twenty-three buildings with over 350,000 feet of floor space. In addition are bungalows, sheds and minor buildings. A large administration building houses the production chiefs, the supervisors, directors, writers, business and casting offices. To the rear are the carpenter, metal and plaster shops, dressing rooms, property and wardrobe departments. Then the large stages themselves, and about them open spaces, with streets and a variety of structures for outdoor "locations." The streets are concrete paved. Forty-eight acres of land are utilized.

The stages, measuring 240 by 135 feet, are equipped with great overhead tramways, for handling the arc and mercury vapor lights; the floors are heavy enough to support trucks.

The electrical plant has space for twelve huge generators. Twenty billion candle-power is available, sufficient current to supply a city of 10,000 population.

Other buildings are: a large one, housing film cutting and projection rooms and camera vaults; a garage, 40 by 100 feet in area; lumber sheds, saw and planing mills; a large incinerator; scene docks; a studio greenhouse 40 by 100 feet.

In the building of the plant 150 carloads of lumber were used; also three carloads of steel sash, 50,000 square feet of glass, six miles of underground conduit and twenty miles of lighting wire.

With reference to running expenses I may refer to another studio where the budget runs around $400,000.00 a week.

The present production régime may be judged by the fact that one studio has under contract at high salaries the following creative staff: seventy-one writers, thirty-one directors and forty-nine stars and featured players.

The product of the industry may be divided into two kinds: long and short subjects.

Long subjects comprise the so-called feature photoplays of five reels or more in length. Short subjects, limited to two reels, consist of comedies, news reels, cartoons, travelogues, and novelties of various kinds. Producers, for the most part, specialize in either of these two fields of work.

Each year over 700 feature photoplays are produced. The production cost varies all the way from five thousand to over a million dollars per picture. These are the extremes. So-called "western" dramas, consisting largely of out-door settings, cost generally from $10,000 to $60,000. Program features in general cost from $60,000 to over $200,000.

The production side of the industry is quite similar, in an economic way, to stage production. It is, in other words, the show business. But, as soon as positive prints of the motion picture show (the negative) are made and the films go into the cans, the business enters a regular industrial phase. And so we proceed to a consideration of distribution.

Distribution

Distribution has two functions: (1) physical distribution, involving shipping, clerical work, collections and the inspection and renovation of the film; and (2) selling and advertising, getting the contracts for groups of pictures and then playdates for the individual picture. Further, there are two methods of general distribution in vogue. The first, which is used by all the major concerns handling feature photodramas or short subjects or both, is conducted through branch offices, owned by each company and located at key points throughout the country. The second method is called "state rights." Under this plan, the country is divided into specific territories in which individuals—"buyers" as they are termed—have their own distribution offices. They purchase rights to pictures for their local territories for a flat sum or on a percentage arrangement, from independent producers or distributors located in New York whose business it is to handle the sale of rights for the producer.

National distribution by the major concerns comprehends a structure highly organized and functioning in more than thirty cities or strategic points: New York, Boston, Philadelphia, Washington, Pittsburgh, Indianapolis, Cleveland, Detroit, Chicago, Cincinnati, St. Louis, Kansas City, Memphis, Atlanta, Charlotte, New Orleans, Dallas, Denver, Salt Lake City, Des Moines, Omaha, Los Angeles, San Francisco, Minneapolis, Butte, Seattle, Portland, Oregon, with suboffices in several other lesser towns.

These offices are termed exchanges. They are the arteries of commerce of the film industry. From them the picture moves to the theatre on its way from studio and laboratory to the public; it comes back to them after exhibition, and takes up its journey again to other theatres, until the life of the picture is over at the end of two years.

Physical distribution is a rather complicated affair, but its main outlines are simple enough. The studio, having completed the picture, sends the negative to the laboratory, where positive prints are made, probably a hundred for each average production; two hundred or more for photoplays of outstanding excellence. The prints are shipped, under allotment and instructions from distribution headquarters in New York, to the company's various exchanges, where they are booked to the theatres.

The administration of the exchange is under the direction of a branch manager, who, in turn, reports to his chief at the home office, the latter being known as general manager of distribution or sales manager for the entire country.

The prints go out to the first-run theatres for a stated number of exhibition days arranged by contract; then travel to the second- third- and fourth-run houses. In direct charge of the handling of the film is the booker in the exchange, who must see that the print gets to the given theatre on time and in good condition, and that it gets back promptly so that it can take up the next stage of its journey.

Transactions with very few exceptions are cash. The theatre pays in advance, or meets a c. o. d. on the film when it is delivered and also pays express or parcel post charges both ways. Thus the national distributor is enabled to realize a comparatively quick turnover on his product.

The exchange also attends to film inspection and renovation; and in cases where the print wears out before its natural life ends, places a new print in circulation, thus permitting the thea-

tres to give the public satisfactory results on the screen.

Until late years, the attention paid to the condition of prints was extremely scant. But this evil is by way of being remedied, not only through more efficient work at the exchange, but by more care on the part of the theatre while the film is in its possession.

But the physical side of the film is by no means the only concern of the exchange, nor is it the most important. Greater emphasis is placed on the selling of pictures to the theatres, though "selling" is really a misnomer; "renting" is the proper term.

A motion picture is an affair of copyright; what the theatres actually do is to pay royalties for exhibition rights.

The exchange manager then directs his group of salesmen in their salesmanship work with exhibitors. There being no fixed price for film, the thing resolves itself into a typical buyer-seller situation, with the legal doctrine of *caveat emptor* fully operative.

I speak now of the renting of pictures to theatres individually owned. Large circuits are generally "sold" direct from headquarters, because of the greater importance of the sale.

The contractual relation between theatre and distributor has many ramifications, which go to the heart of the economics of the picture industry:

(1) Theatres sign contracts for pictures at certain seasons of the year; roughly, in the spring and fall. The theatrical year runs from September to September. Contracts are made for the year or half-year and usually for pictures "in block"; that is to say, for a whole group of twenty-five or more productions, rather then singly. This practice applies equally to feature photodramas and short subjects (comedies, scenics, educational, news reels, etc.).

(2) Save in rare instances, contracts, obtained by salesmen from theatre owners, are not in force until they are signed and approved by an official at company headquarters, and are subject to cancellation by the theatre only on very unusual occasions.

(3) Price is determined, as above stated, by bargaining and cannot be changed, once it is written in the contract, unless the theatre loses heavily on the exhibition of a picture, or a series of pictures, in which case the distributor may make an adjustment.

(4) Disputes arising between buyer and seller are arbitrated. This is compulsory under the contract.

Arbitration boards, composed of equal representation of exhibitors and exchangemen with a seventh arbitrator subject to appointment in the event of deadlock, operate in all the key cities and have been remarkably successful in stabilizing the industry's economic structure. Thousands of cases are settled each year and resort to the courts is practically unknown. This arbitration system is, of course, not yet perfect, but it is a big advance over the economic chaos of the industry's early days and has attracted wide attention in many quarters of the business world.

Each large distributing company—there are about twelve of these, to which should be added a similar number for distributors selling "state rights" on a national scale—maintains a considerable sales force, and the whole distribution operation is under the executive direction of the sales chief in New York. He must have his finger on the pulse of the market at all times, and this necessitates extensive trips through the various territories. He determines, to a large degree, sales methods and prices, and maps out, in collaboration with his home office advertising department, and his production associates, the nature of advertising to be used,

the expenditures, and where the advertising is to be placed.

The advertising of motion pictures is divided as follows:

(1) To the theatres through the trade papers.

(2) To the public, via national magazines, newspapers, and posters and other accessories.

In general, it may be said that advertising, in the film industry, is a distinct function of the distribution department.

The handling of posters and accessories is a large item. Various types of "paper," as posters are technically termed, are issued on each picture, then delivered to the exchanges and by them sold to the theatres at nominal prices.

The intake to all distributors from film rentals runs, in the course of a year, to approximately $185,000,000. And of this figure, it is safe to say, thirty to forty per cent is expended for distribution overhead.

With very few exceptions, large distributors are now also engaged in exhibition, through direct ownership or affiliation with theatres and theatre circuits, the play-houses thus controlled now being about 1800. In comparison with the total—some 15,000—this group is numerically small, but it includes the finest theatres and therefore the largest single purchasing power in the exhibition field.

EXHIBITION

In all the amazing growth of the motion picture industry, no branch of it has shown greater progress than that of its theatres.

In the first days of the picture house, the show places of the large cities and the small towns were pretty much alike.

This was the store show era so familiar to all but the younger generation. There was little investment on the part of the theatre men themselves, for a variety of reasons, chief among which was the lack of finances or the ability to secure them, the want of vision to see the motion picture's permanent popularity with the public, and the small admission charge of five or ten cents that did not permit the average theatre owner to realize enough net profit quickly to improve the size, convenience or sumptiousness of his house. True it is that many of the fortunes that have been made in the movie theatre had their foundation in the five-cent show, but of the twenty thousand places of amusement that had sprung into existence by 1914, it is safe to say that a very small percentage were really making money. There are seven thousand towns in the United States of less than 1500 population that during that period and most of the time since, up to the last two years, had some kind of a movie show. Ninety per cent of this class never had made anything more than a precarious living and in no small number of instances the show has, over the years, shown an actual loss. Since 5000 of them or their successors still remain in business, up to this time there always have been optimistic newcomers to take the place of those who finally reached the end of their means or grew discouraged over their lack of success. On the other hand, some facts and figures are available that would permit a guess that this class of house is greatly on the wane.

In certain states, and in every case such state is one where good roads have been built, the shrinkage in small-town theatres runs as high as thirty-five per cent. In New Jersey, a state that has unusually good roads and also possesses a large number of medium sized cities, there remain only twenty-nine towns of the class mentioned that support a picture show even one night per week. Several of these are summer resorts

where the transient population over a portion of the year is many times greater than the total permanent population.

It is true, however, that New Jersey is an exceptional territory in this connection. In Kansas there are still 241 of these "opera houses" out of a total of 428 theatres in the state. It may rightly be argued that a goodly portion of these will remain, since Kansas roads are none too good, its large towns are few and far between and its small towns numerous and progressive for their size. With the exception of North Carolina, practically all the Southern states are in a like condition. Great strides, however, have been made in many sections of the South in theatre construction, notably by two large circuits, and some shrinkage may be expected as a consequence.

It is not to be construed from this recital that the motion picture is losing its popularity with the public. In fact the contrary is quite the case. The picture-going public is simply concentrating its patronage in the larger towns, where new and better theatres have been provided for them. It is also a fact that the number of seats available are greater than ever. It is just that these seats are placed in a smaller number of theatres.

CHANGING THEATRE CONCEPTS

Roughly speaking the history of the picture theatre may be divided into three parts. The first was the store shows which were superseded by larger and more comfortable but still inexpensive theatres. The picture house of 1914 that cost above $50,000 was the exception, taking the country by and large. A house that cost five thousand dollars in a town of five thousand population was considered quite good enough and perhaps better than the village could afford. Capital still declined to invest or loan money for theatre construction, even where the theatre manager had lived down the early distrust for his kind. Getting the funds together to build a theatre costing as little as the sums mentioned above was a hard job—harder than obtaining the capital for the million dollar palace of to-day.

Where the five-thousand-population man had to borrow from his friends, relatives and neighbors to build his modest theatre, he can now get twenty times that amount from his banker for his latest venture. The reason for this change of heart on the part of the money people is not readily apparent, nor would the same set of facts hold good for all towns. Perhaps one of the basic reasons is that the theatre owner has earned his place in the sun, such of the old crowd that still remain, and certainly, as the business has grown more stable and, if we may be allowed to use the word, respectable, new and better business men have been attracted to it.

This new element has brought capital with them, where the first men had little or none. They have been able to go to the banker on a business basis and on a scale that commanded the respect of those who have money to loan. Then, too, it became apparent that a good theatre was a decided asset to a town. Local banks have directors chosen from local business men. It is not beyond the realm of possibility that many a bank director has voted to loan on the proposed new theatre with one part of his mind sticking strictly to banking principles (reputation and security) and the other wandering across the street to his own particular enterprise.

The financing of large theatres is, of course, in its latest development an entirely different matter. Wall Street has discovered that the public is willing

to buy stocks and bonds in picture ventures. Abundant capital is now available for the kind of theatres that the public demands and in the public demand lies the complete success or failure of the picture theatre.

When it is remembered that one picture in one theatre can play to $400,000 (record of *Variety* at the Rialto Theatre, New York City) not simply because it is an out of the ordinary production, but also because it is shown with proper surroundings, the importance of providing those surroundings may be readily understood.

The number of really big and expensive theatres that may be soundly financed is relatively small, however, compared to the number of theatres, about 15,000 now existing in the United States. There are seventy-nine cities with populations of over 100,000 where some 500 houses of the "million dollar" type have been constructed and probably as many more of just a slighter less expensive and luxurious grade are contained in the next group of cities, say down to 50,000 population. The question of how many of this class of house can be profitably operated is something that even the best informed cannot answer. An expert guesser predicts that Kansas City for instance will support seventeen or eighteen houses, most of which should be situated in residential sections. These theatres will do all the business and more than is now divided among fifty-nine houses. In other words, for every new type house built, provided it is properly located and conducted, three of the old type will be forced out of business. Facts to substantiate such predictions are to be found in such instances as the opening of the Eastman Theatre of Rochester, New York, where nine smaller houses closed their doors very soon thereafter.

Attendance Figures

The attendance figures at picture theatres for the larger cities have reached amazing proportions. Forty-seven million people attend the picture theatres every week and twenty-four million of these do so at 3300 houses, large and small, in the seventy-nine cities of 100,000 population or over. Big city first-run picture palaces fill their seats as high as eighteen times per week. An average for the thousand houses mentioned as the best in the country would probably be twelve times per week. Figuring the average seating capacity of these theatres as 1200, which is a close guess, seven million people weekly are entertained in these houses alone.

This ratio of attendance is not to be applied to all the theatres of the country however. To illustrate, accurate figures compiled for the average house in a town of less than 1500 population show the weekly attendance to be 350 people. It may be explained in this connection that most of the movies in these towns are open but two nights per week and many of them only once. The same table of figures gives the average attendance in a town of 5000 as 3800 and in a city of 25,000 as 14,800.

Foreign Distribution

America stands in a paradoxical situation in regard to motion picture trade; she is virtually the only nation which can produce on a suitable scale for her own market alone, and for that very reason controls more than eighty-five per cent of the world's markets. America, in other words, is the only country in which the cost of an elaborate picture can be gotten back without the help of export revenue, and for that reason America is the only country in which first grade motion picture productions are being made in sufficient

quantity to keep the theatres of the world supplied with a steady supply of new films. No other nation can finance and make enough pictures to supply its own theatres, as matters stand to-day.

The American producer can spend from $200,000 to $1,000,000 or more on a picture, knowing that regardless of the outside market he can obtain a return in the rich domestic field sufficient to warrant the investment. If he can obtain an additional thirty-five per cent or so of gross revenue from abroad, so much the better. The European producer, on the other hand, cannot afford to spend such sums, because all the countries of Europe put together could scarcely return that amount. Unless he is assured of American distribution, therefore—or is willing to gamble on obtaining it—he must make his pictures at very low cost.

While it is possible to make reasonably good pictures without spending a great deal of money, the poorly financed producer cannot compete in the all-important matter of retaining those personalities on which his success rests—stars, directors, writers, and so on. That largely accounts for the exodus to Hollywood of leading European film figures.

Ultimately a degree of reciprocity will grow up which will make possible a reasonable amount of adequately financed production in Europe, but at the present moment the screen belongs almost entirely to America.

Aided by this large volume of high grade product, American motion picture firms have built up an export service that will compare favorably with any American industry. It extends to the farthest corners of the globe, and carries American films to Japanese villages and Polish hamlets with the same regularity and quality of service as that enjoyed by a New York or Chicago theatre.

For this reason, it may be interesting to analyze briefly an organization typical of the highest development in this field, which is representative of the extensive operations abroad of the American industry generally.

Under the supervision head of this organization, come 110 offices and exchanges. Approximately 1800 persons are employed in these offices, which are scattered throughout seventy countries.

Thirty-seven languages are used by the organization, and titles and advertising matter must be prepared in all of them. In Arabia, Egypt and Turkey, two and three languages are used on each. This, together with the fact that each country has its own particular rate of exchange on money (some of them still unstable), complicates the conduct of the department enormously.

All of these offices must be supplied with prints and with advertisement sales material, and it is the boast of the department that no release date has ever been missed, even during the trying years of the World War, when the submarine attacks jeopardized all shipping and made facilities difficult to obtain. One negative of each picture is shipped abroad, from which prints for England and certain Continental nations are made, and in addition to this about 500,000 feet of positive is shipped out each week from America, not including West Coast shipments.

Advertising matter, press books, posters, publicity stories and cuts, newspaper ads and exploitation material must be supplied on each picture in every country. Some of this is done in New York, but most of it locally in each nation.

In recent years the organization has gone into exploitation on a scale com-

parable to the methods of American sales departments. Special exploitation men are stationed at exchanges in Mexico, France, England, Germany, Australia, Argentina, Italy and Japan, helping to carry the message of showmanship to exhibitors in those countries.

Several interesting sidelights on the conditions met with in doing this are furnished in a report prepared by the assistant manager of the foreign department.

Our foreign offices are approximately four to ten months behind United States release dates, and this condition gives us a distinct advantage over the domestic distribution, as we are in most instances able to see all pictures prior to setting them in for release, and thus benefit by the box office tests and results of the pictures in the United States. However, the release of a picture in the United States is but the beginning for us, and by no means does the success of a picture in the United States carry absolute assurance of its popularity in foreign lands.

Success, like failure, travels fast, and we immediately set the machinery into motion to carry the reasons and psychology of this success to the four corners of the globe. Cables, wires and radiograms flash the good news around the world. Laudable reviews of newspapers and critics are transmitted in all languages through the foreign publicity department. Sales letters convey the quotas and values, and the big picture of the moment in New York, Atlanta or St. Louis becomes the talk of the expectant trade in Budapest, Buenos Aires or Sydney. But it would be indeed an easy road ahead if this success could be multiplied internationally. We have thirty-seven distinct nationalities to cater to with as many principal languages to contend with, and we have learned by experience that what might please the French might be frowned upon by the Swedes, and what might be acclaimed in London may be met with derision and contempt in Mexico.

With due regard, therefore, to the possibilities of each individual country and the attendant shortcomings prevailing in most foreign countries in respect to the number of representative theatres, we allocate a given percentage to each territory. The total of these percentages represents the average gross foreign income.

The returns of some of our foreign offices when viewed in terms of dollars may be particularly low in certain instances and may be record-breaking results in terms of the currency of the country, depending entirely upon the existing rate of exchange.

Our foreign offices, consistent with practicability and local requirements, are operated along lines similar to our own exchanges in the United States. Exchange form and equipment are being standardized, and modern, proved and tried American methods are the keynotes of both our old and newly organized offices.

The Motion Picture of To-Morrow

By Sidney R. Kent
General Manager of Famous Players-Lasky Corporation

TRAVELING through the rolling, fertile plains of the Middle West, through the orchard lands of California, through the oil fields of Oklahoma, or through the ore laden mountains, one cannot but marvel at the productiveness of nature.

Yet, nature is mystifying. Despite human endeavors these fields, which to-day are so fertile in the essentials of life, may lie barren and empty to-morrow. Man may direct nature, but he cannot completely control it. Through his genius he may increase the productiveness and enhance the value of these fields, but he never knows when nature may rebound and crush his hopes for advancement.

Any undertaking parallels nature. We plan for to-morrow, but who can foresee the obstacles which may rise unheralded and obliterate our hopes for achievement?

The motion picture industry in the thirty years of its life has developed beyond the most optimistic expectations. In the fields of art, music, finance and sociology it has become an important factor and one with which we must reckon. We confidently look to the future for even greater strides, but any forecast must mirror our hopes only.

Since that day a quarter of a century ago when the motion picture first was recognized by a few astute men as a commercial and an educational property, the business has grown into a tremendous financial enterprise, with an investment estimated at more than $2,000,000,000. To-day it ranks, according to authoritative sources, as the fourth or fifth largest industry in the world. That growth represents one of the outstanding achievements of this century.

Out of the dingy and uninviting store-shows, known then as nickelodeons, have matured the palaces of the silent drama which stand proudly on the Main streets the world over. Invested in these beautiful structures are millions of dollars, with many of the individual theatres costing two, three and four million dollars.

The motion picture to-day is a stabilized industry, financially and commercially sound in all of its phases. Through its years of struggling it has rightfully gained the respect and counsel of the greatest financial minds. Investments in motion picture securities to-day are as safe as investments in any other recognized and stabilized enterprise. As in all investments, however, the investor must heed the counsel of those who are familiar with the business in all its ramifications. The public must be alert and must not be duped by glib-tongued promoters.

What the future holds for this vast industry in the financial world is problematical. Thus far the surface has only been scratched in the development of its potentialities. Those of us who are a part of this great business realize that we still have fertile fields in which to direct our efforts for greater achievements. If our aspirations are only partially fulfilled, the motion picture of to-morrow will dwarf the business as we know it to-day.

The motion picture is building

under the influence of men of vision, men of courage whose constructive activities and lofty ideals have guided the industry successfully through its formative years. These men who forged ahead, though burdened by adversities and skepticism, are certain to realize greater advancement within the next quarter of a century, for the foundation upon which they have builded is firm and substantial.

The future of the financial aspect of the business, however, must parallel the progress made in other phases of the motion picture. Vital in the financial development of the motion picture is its contribution to humanity. It is an institution whose mission is more and more essential to human progress. The morale of the universe has been materially strengthened through the influence of the screen upon community life.

FUTURE SOCIALIZATION WORK

What further advancement will the motion picture make in its relation to society? Again we must talk in generalities; we must base our predictions upon hopes and aspirations, and upon past achievements.

Thirty years ago the motion picture attracted public interest because it was a novelty. With mechanical development it became recognized as legitimate entertainment. To-day it has stepped far beyond those confines. Governments and peoples have discovered in the screen a medium through which they may advance their aims and ideals.

An enlightening illustration of this is the Americanization work being done by the United States Government. Plans are now being perfected for the showing of patriotic and educational films in the steerage of trans-Atlantic steamers so that the potential citizen may know something of our customs, our ideals and our backgrounds before reaching our shores.

In speaking of this undertaking, James J. Davis, Secretary of Labor, said: "I know of no greater service you can render than showing the heart of America to these future citizens."

The films for this good-citizenship service are being supplied gratis to the United States and other lines by members of the Motion Picture Producers and Distributors Association, of which Will H. Hays is president. In the membership of this organization are the important producing and distributing companies, who are striving to serve the world through this agency which they have at their command.

Who dreamed thirty years ago that the motion picture would serve humanity in that respect? Perhaps no one. Who then can vision what the future holds as a medium for inculcating the future citizen with the spirit of America?

FUTURE EDUCATIONAL IMPORTANCE

No one can appreciate just how important a factor the motion picture will become in education. Intensive experimentation is under way with a view of determining the practicability of the screen in teaching the diversified studies found in elementary and collegiate schools. In the schools in ten cities this work will be carried on this fall and winter. Five pictures have been selected for the test.

It is only logical that the motion picture should be used in education, for demonstrations have attested to the fact that children and adults alike learn more easily through this method.

I will cite an example to prove this: A professor in the University of Oklahoma conducted a series of tests on this subject. He took twelve students of the same mental development and divided them into three groups of four

members each. One group was taught by films only. A second was instructed by a superior teacher, and a third by an ordinary or average teacher. The film group scored an average of 74.5 per cent; the superior teacher's group, 66.9 per cent, and the average teacher's group, 61.3 per cent. It would seem then that the decision rests in favor of the screen.

A noted educator said recently: "Within the celluloid film lies the most powerful weapon of attack on ignorance the world has ever seen."

In that man's statement you will find an honest conviction and an answer to the question, "What does the future hold for the motion picture in education?" The future is limitless and is governed only by the progressive spirit of those who control its destinies in this respect.

FUTURE CONTRIBUTIONS TO THE ARTS

No less encouraging is the part played by the screen in the field of music. Only a few years ago the music of the great masters was something little appreciated by the average American. To-day the story is different. Let me quote John Philip Sousa, the noted bandmaster.

He says:

> The motion picture theatre has been of incalculable benefit in spreading the love for music. Nowadays no picture is complete without a good musical score, composed both of popular and classical pieces, to suit the theme of the picture. This has created an amazing taste for music among the theatregoers that see motion pictures. Before motion picture theatres, especially the big ones, with their large and splendidly conducted orchestras came into vogue, I doubt if 100,000 people a week heard orchestral music in this country.

The rise of symphony orchestras in many of the cities within the last few years has been aided by the motion picture theatres. Some of the finest musicians are found to-day in the orchestra pits and they are developing new talent for the symphonies. The symphony orchestras of the future are being fostered and appreciative audiences created for them by the mo ion picture theatre.

In a recent talk, Mr. Hays predicted that

> the motion picture theatre of to-day is a cradle in which real American music of the future is being nurtured.
>
> Great composers have written for the spoken drama and there is no reason why the great composers of the future should not write as great music for the silent drama. Grieg, Beethoven, Schubert, Richard Strauss, have found inspiration in the stage plays and many lesser composers have followed them.
>
> The composer of the future should fairly rejoice in the opportunity to create a new form that is presented by the screen. The swift flashes from one scene to another, the fast movement, the cut backs, fadeouts, all are movements to inspire the creative musician. Already something of this nature has been done for some of the recent pictures, but the not too distant future will see a new form developed in the music accompanying our pictures. The scoring of pictures with accepted music has reached a high state of perfection and the future will see a similar state of perfection for the special score.

The motion picture theatre has created audiences and in the rendition of good music it has created a demand for such music on the part of these audiences. The public to-day expects the finest orchestral accompaniment to pictures. Because of the expense involved, however, many of the smaller theatres are not in a position to employ orchestras. This obstacle is now being overcome. Now playing on Broadway is a marvelous piece of mechanism known as the Vitaphone. Through it the music of the symphony orchestras, the songs of noted opera stars, will be available to audiences in the smallest

hamlet. No matter where a picture may play the theatregoer will hear an accompaniment by the symphony orchestras of New York, Chicago or Philadelphia. Other inventions of this nature are being perfected, and with their perfection will come a broader appreciation of music.

In art motion pictures have had a noticeable effect. I do not believe that any one can deny the fact that they have increased public appreciation of the beautiful. So fine has the art of motion picture photography become that many of the pictures produced to-day have within them scenes as delicate in structure as a pastel. Only recently I read that some artist of prominence had foresaken his career to devote his genius to the art of the screen. That, it seems to me, evidences the strides which are being made in developing the motion picture as one of the greatest arts.

COMMERCIAL BENEFITS

There is another phase of the motion picture which, I believe, is little appreciated. How many people, I wonder, realize the benefits the merchant derives from the theatre which may be in his locality? The motion picture theatre is a business builder. That is not a statement of theory, but of fact. Recently in a Missouri town the only motion picture theatre was destroyed by fire. As days passed the business men noticed a perceptable decrease in trade. The situation eventually became so alarming that a meeting was called and plans were discussed for the erection of a new theatre in that community.

The years to come are going to see a closer co-ordination of effort between merchant and theatre-owner, for through this co-ordinated effort will be determined the prosperity of a community.

So long as we have motion pictures we will have prosperity. The romance and beauty which radiates from the screen is an inspiration which dominates the theatre-going public.

The part played by pictures in commerce is not limited to individual communities. It is world-wide. Our pictures have advertised America as no other medium could. American customs are recognized the world over, and the product of our factories is reaching out into new fields. American motion pictures speak a universal language. They are our ambassadors to remote corners of the globe.

IN THE FUTURE!

No one but a Supreme Power can retard the progress of the motion picture. Where it will reach we do not know, but the advancement it has made in a quarter of a century makes the future seem extremely bright. As the years come and go it will become more and more an integral part of life in all its phases. Those of foreign lands who are strangers to-day will be our neighbors to-morrow. History will be screened for us, and not written. Even to-day elaborate plans are being formulated for the preservation of all films of an historical nature. One hundred, two hundred years from now our ancestors will see thrown upon the screen animated pictures of men who have guided the destinies of our nation. Historical events will be pictured in all their vividness.

It makes little difference into what channels the motion picture may be directed, it will always remain foremost a form of entertainment—the most popular form of entertainment the world has ever known. Upon the advancement and development of the motion picture as a commercial enterprise will rest the progress and advancement of the screen in its relation to art, music and sociology.

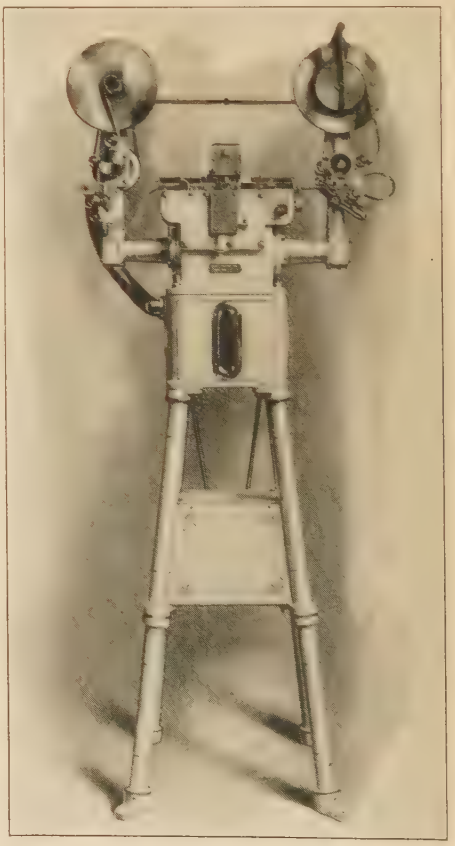
Equipment Used for Motion Pictures

By P. M. Abbott
Vice-President, Society of Motion Picture Engineers

FEW industries make such varied and difficult demands from the standpoint of mechanical equipment as does the motion picture trade. The reason for this is not far to seek. A motion picture film consists of a series of photographs, each three-fourths of an inch high and one inch wide, taken and projected at the rate of about sixteen per second, and enlarged on the screen to nine by twelve feet, or more. This means high speed and a magnification of one hundred and forty-four diameters and upwards, or more than twenty thousand times. The slightest imperfection or flaw at any stage of this complicated process spells failure. It is only natural, then, that the highest type of precision machinery, representing an enormous investment, be required in every branch of the industry.

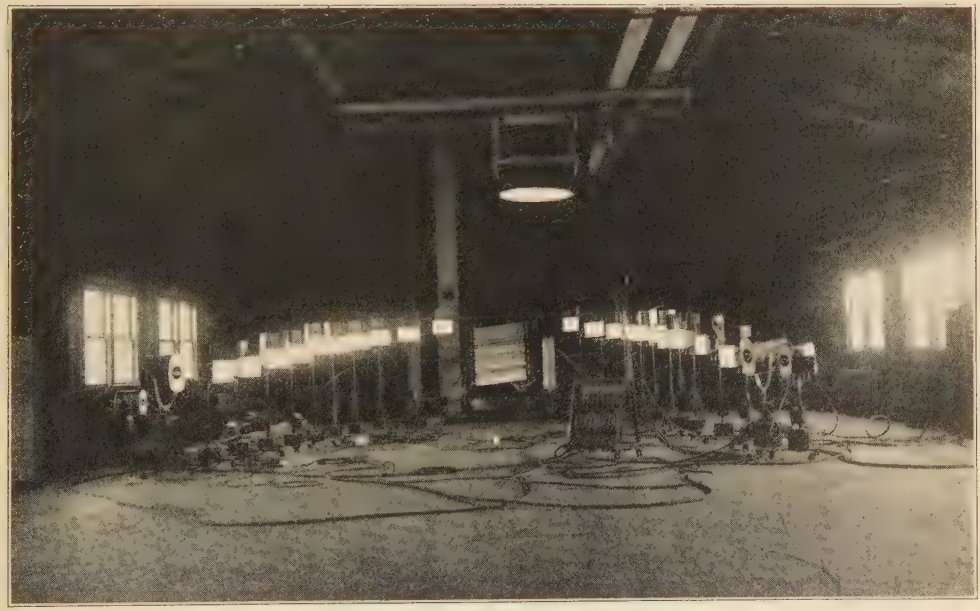
It divides, roughly, into (1) machinery used in the manufacture of the raw film; (2) machinery used in the studio where the pictures are made; (3) equipment in the laboratory, where the prints, or duplicate copies, are made; (4) equipment in the exchange, from which the prints are distributed to theatres; and (5) equipment in the theatre, where the pictures are shown to the public.

The first step, raw film manufacture, can be dismissed in one paragraph, for the reason that it requires little equipment not common to all photographic manufacture. Motion picture film is manufactured in the same precise way, and with the same apparatus, as ordinary photographic film. It is then cut to a width of one and three-eighths inches and perforated along both edges with four sprocket holes to each "frame" or picture. These sprocket holes are for the purpose of engaging the film with the teeth of the sprockets, which feed it through camera, printer and projector. The perforating machine must be accurate to one ten thousandth of an inch, for the slightest lack of steadiness in the film will be magnified enormously on the screen.



No. 1—Perforating machine, which punches the sprocket holes along the edges of raw film stock.

No. 2—One of the largest batteries of cameras ever used in taking one scene of a motion picture production.



No. 3—Lighting equipment for illuminating sets in picture production. Here are shown baby spot and spot lights, broadsides, an overhead dome and a bank of Cooper Hewitt mercury vapor lamps.

STUDIO EQUIPMENT

Studio equipment, on the contrary, might easily be made the subject of an article which could fill this volume, so varied and complex are the types of apparatus required. Some of the high lights, however, are as follows:

The Camera: — This is a bit of precision equipment of the highest order. A first-class camera, completely equipped, will cost from three to five

No. 4—Mammoth searchlights, of the type used by the Navy, sometimes employed for lighting large sets.

thousand dollars. It consists of a light-tight magazine to hold the film, an intermittent mechanism which moves the film through the camera one picture at a time, a shutter which admits the light while the film is stationary and shuts it off while the next picture is moved into place, a lens of the highest

No. 5—This view shows how sets are constructed and lighted. Note the lights playing on the actor; also the cameraman, director and musicians in the foreground.

type, which forms the image on the film, and a great variety of footage counters, punches, focusing devices and trick attachments of every description and the greatest complexity.

Lights: — Lighting equipment used in the studio falls into two groups — "hard" lights and "soft" lights. Hard lights are those which employ carbon arcs, while soft lights are the Cooper-Hewitt mercury vapor lamps. Types of hard lights include baby spot and spot lights, broadsides (groups of arc lights on floor stands), overhead domes, and special mountings for creating fireplace effects, and the like.

Settings: — The construction and dressing of "sets" creates mechanical demands of varied natures. The departments which prepare this end of a production include completely equipped machine shops, carpenter shops, plaster shops, dressmaking workrooms, metal-working departments, etc.

Power Plant: — Each studio has its own power plant to take care of the enormous consumption of electric current in lighting a modern production. The power plant of a large studio today could comfortably light a city of ten thousand persons. In addition to this equipment, smaller power plants are mounted on heavy trucks for use in lighting night scenes away from the studio. Power from the studio generators is conveyed to the lights through a complicated system of bus-bars, switchboards and spider-boxes.

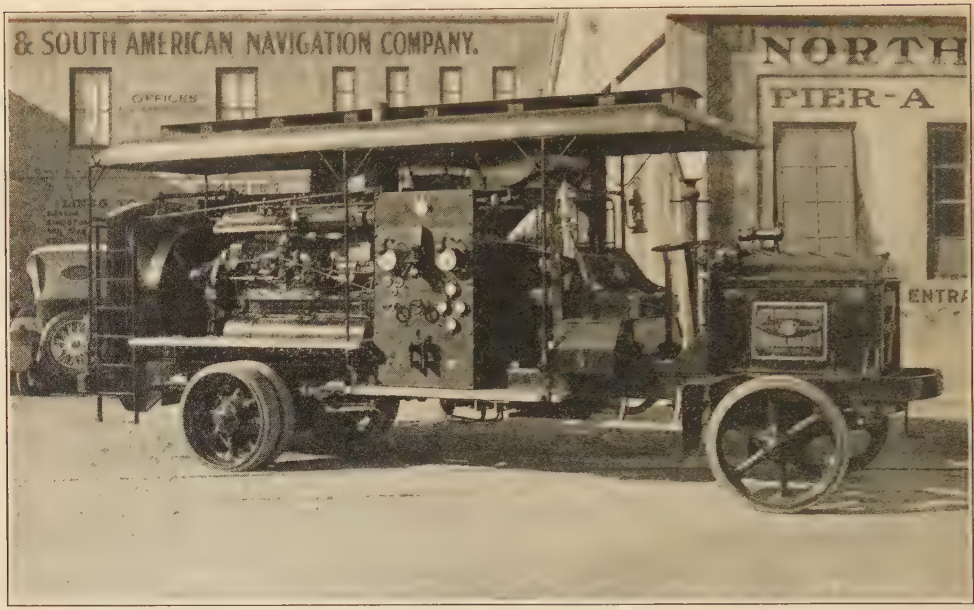
No. 6—This picture affords a close-up of some of the apparatus and equipment employed in the production of pictures in actual use.

No. 7—Nearly ready to "shoot." The man kneeling is using an atomizer to spray oil into the air to produce artificial fog.

SPECIAL MACHINERY USED

In the motion picture laboratory the developing and printing processes are essentially the same as those used for photography in general. It is the special and automatic machinery which is used in handling millions of feet of motion picture film per week that is of particular interest. These machines are:

Film Processing Machine:—This machine manipulates the film through developing, fixing, washing, toning, tinting solutions, and the drying cabinets. It consists of a continuous band of film, a spindle, or spindles, for holding the film, and a loading elevator, so that the film may be joined together without stopping operation. A driving mechanism which carries a series of rolls, or sprockets, is so arranged that the time of manipulation may be varied. This is accomplished by means of varying the speed, or center, distance of two opposing sets of rolls, thereby changing the amount of film immersed in the solution, or a combination of both methods. Circulating and tempering the various solutions is usually accomplished by means of a circulating pump, a cooling coil and a heating coil thermostatically controlled. There is also employed a series of tubes, or vaults, containing solutions, an examining light, or lights,



No. 8—A portable power plant used for generating power to light scenes taken at night outside of the studio.

for determining the chemical action of the solutions on the film, and a method of washing, drying and cleaning the film.

Splicing, or Joining Machine:—This consists of accurately made clamping plates, cutting knives and scraper mechanism. These are operated by foot and hand, and make accurate welds between two lengths of film in a fraction of a minute and with a minimum of labor.

Polishing Machine:—An apparatus comprised of one or more drums, a series of rapidly revolving buffs operating against these drums, a mechanism for moistening, a reel spindle and a take-up spindle. These operate automatically to clean and polish the celluloid side of the film.

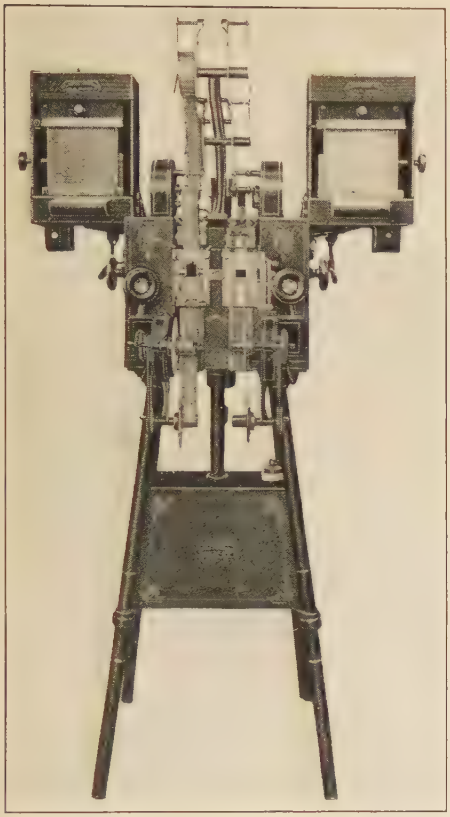
Waxing Machine:—A pair of thin discs, in contact with the film on the emulsion side. This makes a fine line of wax along the edges of the film at about the center of the sprocket holes.

Examining Projector:—This is a modified type of ordinary projector, especially adapted for rapidly examining the finished product.

Various other machines, such as automatic measuring machines and rewinders, ventilating and air conditioning apparatus, refrigerating machines, air compressors, chemical pumps and mixing machines, are all included in laboratory equipment.

Film Exchange Equipment

There is relatively little equipment used in film exchanges. There the films, or prints, supplied to theatres for exhibition purposes, are distributed, inspected, repaired and stored. The inspection of film, for the most part, is hand labor. The film is examined as it is unwound from one reel to another and breaks are repaired through the use of small splicers, which are mechanisms that trim the broken



No. 9—Automatic step printer used in laboratories for making positive duplicates (prints) from negatives.

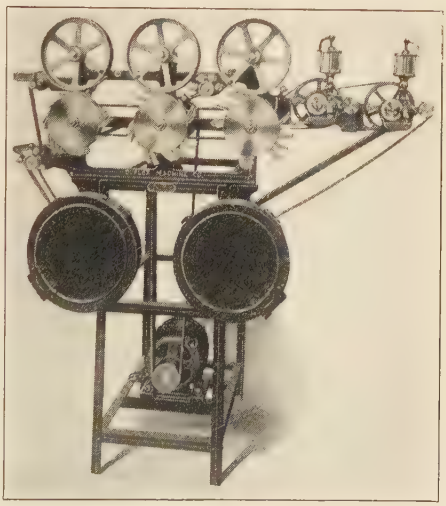
edges and hold them in place during the cementing of the patch.

Film vaults, used for storing film, are designed and built to insure safety against fire or explosion, which may result where intensive heat or partial combustion causes the celluloid to decompose into gases. These vaults have only recently been perfected and are a revelation in the art of fire-proofing. Separate fire-proof compartments, trick ventilation, complicated fire-alarm systems and automatic sprinklers are all employed to their highest degree of efficiency. No precaution is overlooked in the effort to protect film, which burns instantly and with violence and persistence when gathered in great quantities, the value of which may be measured in millions of dollars.

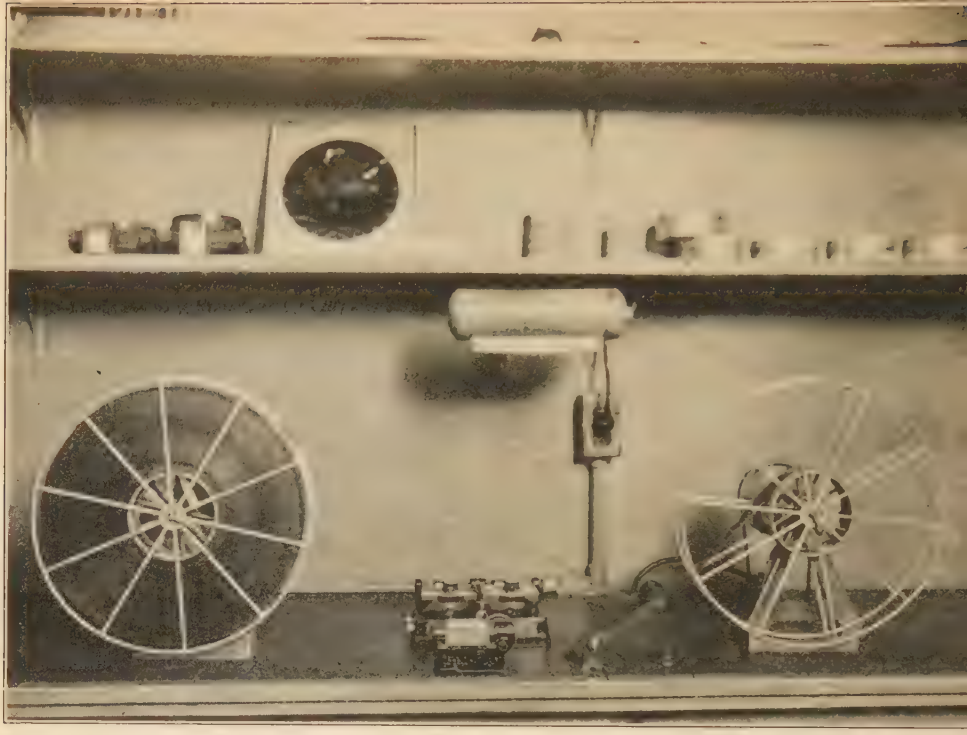
THEATRE EQUIPMENT

It is in the theatre that the greatest variety of equipment is found. Here the finished product of the motion picture industry is presented to the public; here it is that exhibitors leave no ways and means untried in their effort to please their patrons and entice them to the show. Consequently, not only machinery designed to project the picture on the screen is employed, but elaborate lighting, cooling, heating and ventilating equipment, stage effects, special organs and orchestras, luxuriant appointments and the like, are called upon to add their bit to the building of atmosphere, and thus provide complete physical comfort for the audiences.

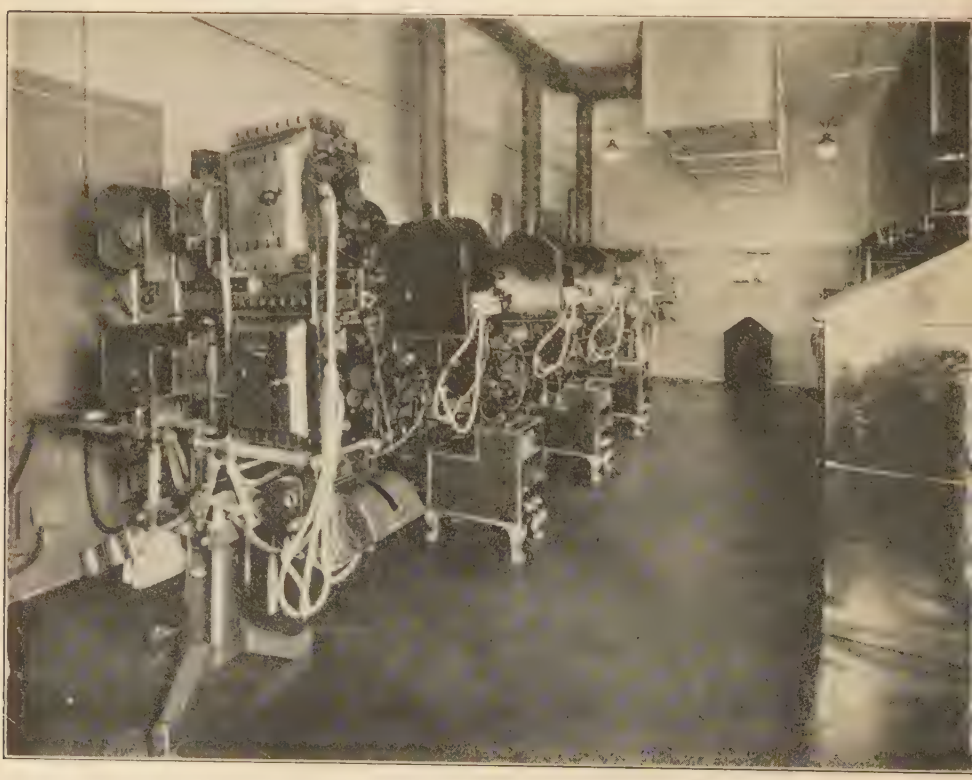
Before describing the apparatus used in theatres more in detail, it is of interest to note that the demands made by the modern theatre on building



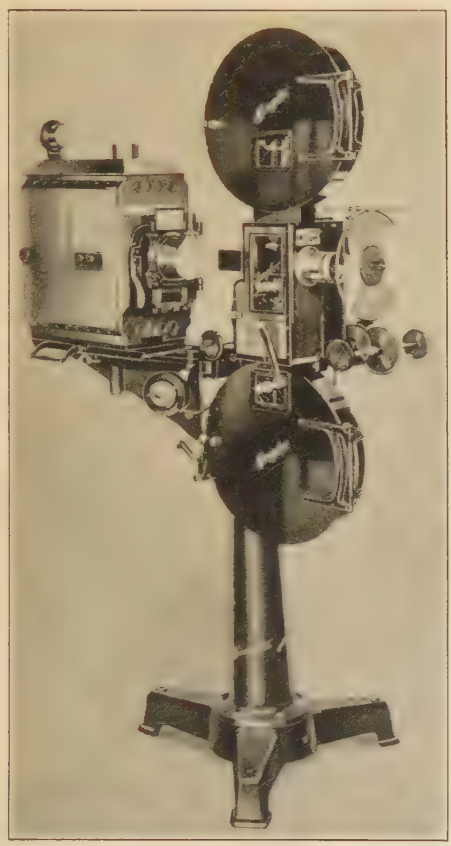
No. 10—A machine used for polishing motion picture film



No. 11—Equipment used by a projectionist to inspect, repair and rewind the film which is being used for the show. The two small mechanisms attached to the table between the reels are a film footage measuring machine and a splicing block.



No. 12—A projection room in a modern theatre. Here are shown a double dissolving stereopticon



No. 13—A standard motion picture projector.

design and construction have been the cause of advancing certain phases of construction engineering. The tremendous size of auditoriums, which seat as many as six thousand people, call for special construction to withstand stress and strain. Especially is this true where spacious balconies are supported without the use of the old time pillars, which were everlastingly placing themselves directly in the line of vision.

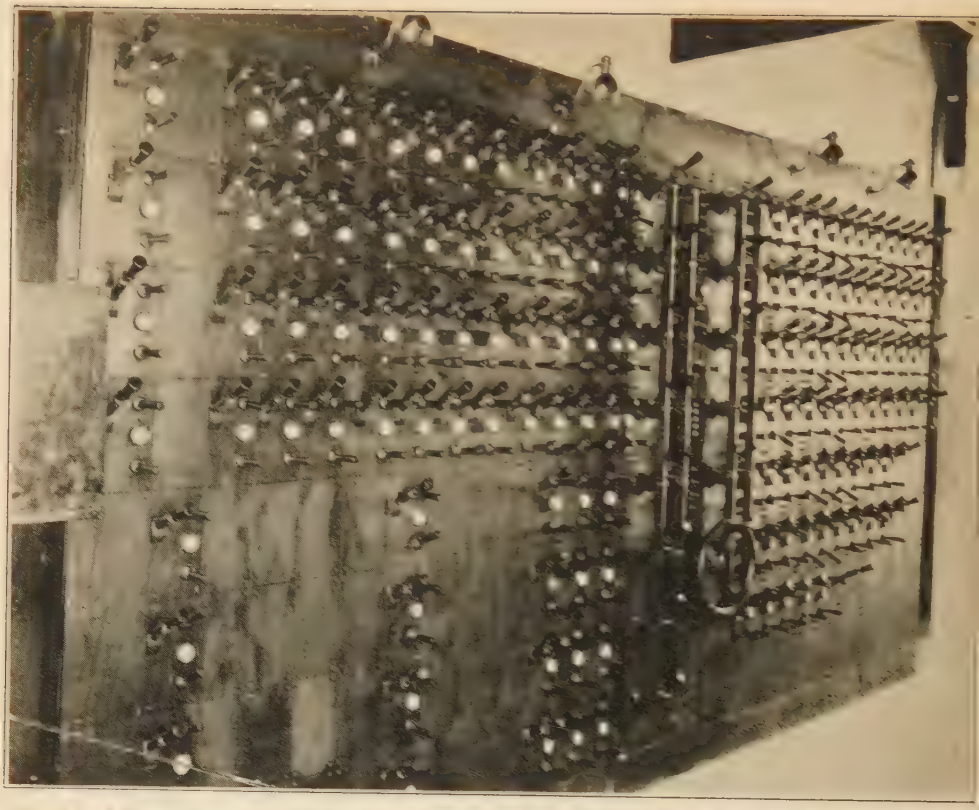
Due to the present-day design of theatres, a convenient method of presenting the equipment is to make a circuit of the house, starting with the projection room, which is located, usually, at the top of the balcony.

In the projection room are found two motion picture projectors, one or more spot lights, a stereopticon projector, house lighting control equipment, electric converter, a film rewinding and inspecting table, a small film storage safe and other lesser apparatus.

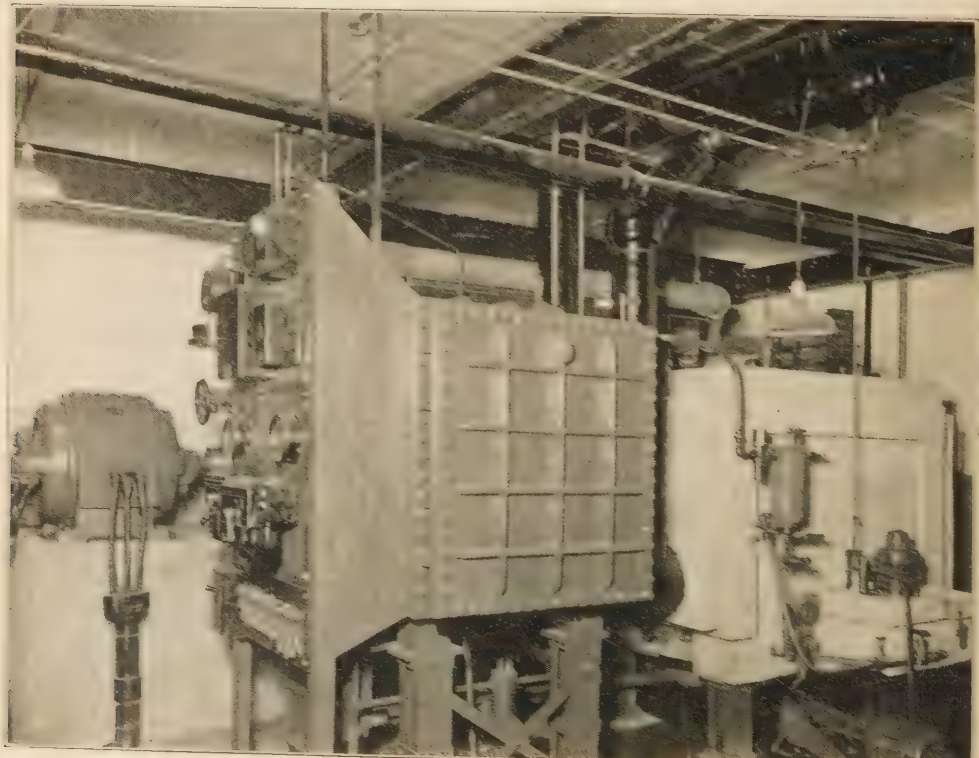
Motion Picture Projector:—This machine is similar, fundamentally, to the motion picture camera. Its function is to project the pictures which are taken by the camera to the screen at speeds varying from sixteen to twenty pictures per second. The main mechanism includes an intermittent movement, shutter, objective and condenser lenses, aperture, two film containers and a film feeding arrangement. The picture is projected to the screen by means of an optic system and light source, the light source usually being an electric arc or incandescent lamp. The intermittent movement is built with precision to insure the registering of the succession of pictures being projected to the screen, thus presenting a steady picture. It is of interest to note that the motion picture screen is dark practically one-half of the time, *i.e.* during the movement of each picture into place for projection. Standard projectors, fully equipped, cost from nine to twelve hundred dollars.

Spot Light:—A carbon, or incandescent, light source, enclosed in a housing and mounted on a pedestal, so that the housing is free to be moved, to permit of directing the projected beam of light. The light beam is formed by condenser lenses placed in an opening in the housing.

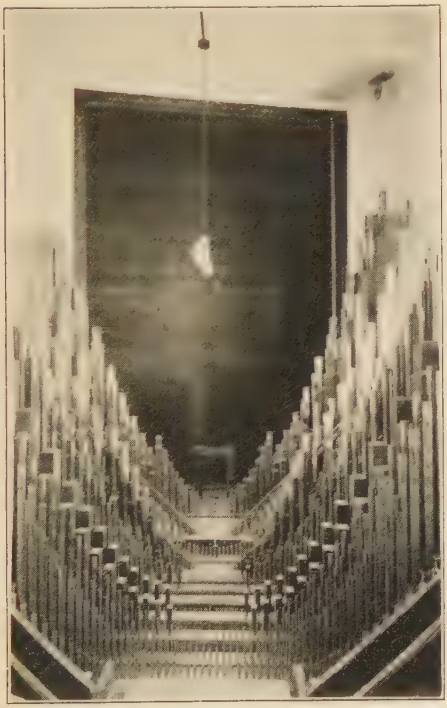
Stereopticon Projector:—This apparatus, in its simplest form, is similar to a spot light, excepting that objective, as well as condenser, lenses are mounted in the housing. This permits of lantern slides, etc., being projected to the screen.



No. 14—A large preset switchboard installed in a theatre for manipulating the lighting effects



Lighting Control Equipment:—This equipment is designed to control the lighting effects throughout the auditorium and stage. In large theatres, where the art of lighting is practiced to the fullest degree, switchboards of enormous magnitude, which permit of pre-setting complete lighting scenes, are employed and are located, usually, back stage. Large banks of dimmers also form part of this equipment. In smaller houses the lighting control equipment is often located in the projection room, under the supervision of the projectionist.



No. 16—Ranks of pipes that form part of a large organ in one modern motion picture theatre.

Converter:—Where alternating current is supplied to a theatre, one of the conventional forms of electrical apparatus usually is employed to convert the alternating current to direct current. This is because the electric arc used for projection purposes gives much better results when using direct current.

On the stage proper and back stage of a modern motion picture theatre are found various stage settings and special lighting equipment. The extent of this equipment depends upon the importance which a theatre attaches to its stage presentations and lighting effects.

Air conditioning equipment is rapidly becoming standard with the first-run houses. This equipment functions to wash, dehumidify and control the temperature of the air which is poured into the theatre for ventilating purposes. Thus, during the hottest days many theatres are found to be delightfully comfortable, which usually proves as much of an attraction as the best of pictures. This air-conditioning equipment is essentially the same as is used in manufacturing plants, where the control of atmospheric conditions is required.

Electric signs, automatic ticket machines, and much minor apparatus complete the equipment which goes into our modern show palaces.

Taken all in all, efficient equipment used in the manufacture of raw stock, on through to the smallest item in the theatre, has played a most important rôle in the building of the motion picture industry to its present prominent position.

Financing the Production and Distribution of Motion Pictures

By A. H. Giannini
President, Bowery and East River National Bank, New York City

EVERY business man, who has given any attention within the past fifteen years to the development of American industry, must have observed how the moving picture business has progressively advanced to the front rank of our national activities.

This forward march has exceeded that of many industries, and has been surpassed only by a very few. Because of persistent misrepresentations fifteen years ago, many persons were misled into the belief that the picture business would never be anything but a bad risk for the banker.

From a very modest beginning it has grown in veritable leaps and bounds, and it has now assumed dimensions of an unbelievable size. It is estimated that one and one-half billion dollars are invested in this American enterprise. It has had its trials, and I sometimes think that the "theory of periodicity," or the ups and downs in the tide of business, originated from observations made during the early and precarious life of the picture business. In those pioneer days, because of these exacerbations, we could find nothing on which to base a forecast of sensible change at any particular time in the near future. The sundry and scanty records, though then interesting, did not, however, disclose the general trend.

The machinery equipment employed in the business, the kind of theatres in use, the poor stories, the inexperienced director, the calibre of the cast, the incompetent title-writer—all these factors were not calculated to awaken an intense interest in the public. The banker, of course, was not attracted to this business.

It was about this time that I became acquainted with some of the men of this industry living in California. These men who became my friends were active in the management of several companies and revealed to me a serviceable efficiency that arrested my attention.

At this time I was Vice-President of the Bank of Italy of California with offices in San Francisco and Los Angeles. These friends opened accounts at the bank. We were in a position to observe their ability and honesty and I became quickly convinced that they had taken hold of a serious work. They were militantly enthusiastic crusaders of the type "who chose to earn tomorrow's bread by to-day's toil."

As their business developed, they came in for financial assistance. They were asked to present statements, but as the business was new and unknown, the customary standards of credit rating could not be applied. At first purely on personal grounds small amounts were loaned. These were always promptly paid. Further and larger amounts were given and all payments were met at maturity. Learning that the Bank of Italy of California was friendly to such business, many then sought accommodations.

Fifteen years is a considerable time to look back in the financing of the moving picture business. It is so even in the life of an individual, and complacency would be unbecoming in either case. It is a poor business whose own retrospect discloses no blemish, and

the most to which any business can aspire is a balance of worthy achievement and the record of my experiences in California vouchsafes such a tribute to this business.

The bank had no losses. Our loans were at times unsecured and at other times secured by an assignment of the proceeds from the positive prints. Occasionally a loan was made on the negative print, but this was a temporary expediency for a negative in the possession of the bank made it impossible to play the picture. These loans were in every instance at the current banking rate of interest. As the business enlarged, others entered and in the rapid growth, some appeared whose intentions were not so honorable. Fortunately these creatures were quickly eliminated.

Growth and Resultant Credit Needs

In the space of seven years, the industry had so grown that it began to challenge admiration both in and out of banking circles. However, most California bankers continued to be indifferent.

Eight years ago I came to New York as the President of the East River National Bank. I learned that my California friends had connections in the picture business in this city. The head offices of the large producing, distributing and exhibiting companies were located in New York. As my experience with the industry had been pleasant and profitable, we quickly established new contacts. The possibilities of the business were readily visualized. From the first we gladly granted accommodations both to producers and distributors, and always with satisfactory results.

I likewise noted that the bankers of New York as in California were also indifferent to the business. My commitments, however, grew proportionately larger. My associates and my directors looked with a very critical eye upon my recommendations. They very kindly but very firmly suggested caution. The Bank Examiners both of the New York Clearing House and the National Banking Department made certain written and oral comments that disturbed us. As the business was new, they very properly advised care.

The steady growth of the business made heavier demands upon the bank and it was then that I turned to the leaders of the industry and sought their co-operation. I had repeatedly stated, both in private and publicly, that the men in control of this business were just as intelligent, just as industrious and just as able as the men in any other big business. The public was responding cheerfully and generously to the support of this new, but now large, enterprise. The masses approved of this form of entertainment and the producer met this demand with better pictures. The inexorable law of supply and demand determined his position.

It was then that it occurred to me to invite to sit with me on our Board of Directors one of the industry, so that I could elicit his support in my belief of the soundness of the business and for the further reason that the business would thus have a friend in court. I had met and was doing business with some of the Jasons of the picture business who had "won the golden fleece." These Argonauts were performing great work, and their co-operation made my work in behalf of the industry much easier. My activities increased, new accounts continued to come in and my responsibilities were necessarily greater.

Gradual Financial Stability

In our desire to do constructive work, we found that a certain menace threat-

ened many of those engaged in the business. This menace is the one found in the central purpose or text of the Merchant of Venice, "Bassanio's attitude on the relation of man to property." These usurers had a menacing hold upon some of the men in the business. The few companies that succumbed were victims of this pernicious "bonus" system.

We had a friendly working relation with every large company. We found, however, that those who were unable to weather the up and down periods were in every instance wrecked to a great degree by these bonus sharks. There were always good profits in the business, but not enough to pay such excessive rates of interest. Like Henry VIII and his desirable princesses, these money sharks would cherish a company furiously for a season, then destroy it and pass on to another infatuation. These parasites are rapidly fading out of the picture and now anyone who has a good banking proposition can easily secure accommodations from any and all banks in this country. The bankers are no longer afraid. This outstanding commercial accomplishment has amazed them and the world.

The management of the various companies is in capable hands, the financial statements are no-longer vague and indefinite, budget requirements are not a matter of conjecture.

All the producing companies of the first rank receive accommodations on an unsecured basis, and are given the same consideration as to amounts and rates of interest as any other high-class, legitimate business. Independent producers, so-called, may be required to lodge with the bank the guarantee of a distributing company. This guarantee always covers the negative cost of a picture. I no longer find it necessary to request that the negative print be lodged in a laboratory to secure a loan. Likewise, it is now unnecessary to ask for an assignment of contracts from exhibitors. These last two plans for loans to picture companies are now obsolete and the sooner entirely eliminated the better it will be for the industry.

Within the past several years, some of the larger companies have refinanced themselves. In each instance the new stock issue was sponsored by high and reputable investment houses. I sincerely hope that the same type of bankers will continue to evince an interest in this business, thereby gauranteeing the investing public adequate protection. The stock issues should be predicated on intrinsic merit. The mistakes of olden days, resulting from "watered" stock, should be scrupulously avoided. Stock issues must be honest in the fullest sense of the word in order to maintain public confidence.

All the foregoing may not be in accordance with your request, Mr. Editor, but if I were to adhere to your instructions, I would give you nothing but figures. These are compiled by others and are only statistical. They often tire, and rather did I choose to concern myself with my personal experiences as a banker who has probably loaned more money to the industry over a period of so many years than any other banker in this country excepting the investment banker. This may be considered very immodest, but it is a demonstrable fact and on it I rest my case.

It is easy to tell you that the industry represents an investment of one and one-half billion of dollars; that it has permanently in employment 300,000 persons; that the weekly attendance at the theatre is fifty million; that the paid admissions annually total five hundred million; salaries and wages paid are seventy-five million annually.

Suffice it to say that ten companies earned over twenty-four million dollars net for the year of 1925.

"The clash of arms," said an old Roman, "drowns the voices of the law." The clash of figures drowns the romance of the most fascinating and interesting industry in this country.

I did not solicit this task, and at the risk of having this modest attempt find its way into the limbo of a waste basket, I am going to close with the following:—

Into Their Own

A clean, wholesome business, managed by men with clear-eyed determination to render a great public service has finally and honorably come into its own. Some of the dearest and best friends I have stand at the forefront of this industry. They have made substantial contributions to a better understanding and maintained a dignity concurrent with the sense of the importance of the relation between picture and public. I recognize in them the standards by which the progress of the moving picture business is measured. They, Prometheus-like, put the fire of life into what was fifteen years ago an inert business. They have the full support of a united people and it behooves our national government to acquaint itself fully with the magnititude of this business. There should be no national indifference, but every effort made to foster this great industry along every line of legitimate endeavor. It appears to me that some of the European governments are manifesting, and deservedly so, more interest in this business than ours at Washington. I will leave it to others to develop this phase of the subject, but in conclusion I desire to sound a warning. The moving picture industry is of such importance that it is entitled to the attention and support of those who are seated in high places in the councils of our country.

The Development of the Motion Picture Raw Film Industry

By George A. Blair
Eastman Kodak Company

MANUFACTURING film for all of the many uses to which the motion picture is being daily adapted has always been a technical and precise task, involving great capital outlay and meticulous care and inspection in every stage of the process.

When one considers that each single picture is frequently magnified some 180 diameters or 30,000 times in area on the screen and run through a projector at tremendous speed, an appreciation of the machinery and methods involved in manufacturing film free from any obvious blemishes may be more easily reached.

While motion pictures are now more than thirty years old, no great volume of raw film was produced until about fifteen years ago. With the phenomenal growth of the industry, the demands upon the manufacturers have steadily increased, until now the Eastman Kodak Company turns out more than 200,000 miles of film yearly.

Those who can remember the first crude movies of the nickelodeon period cannot view one of the modern feature pictures and not wonder at the rapid development of this, the greatest of all photographic arts.

George Eastman's Contribution

It was through the discovery of the nitro-cellulose film base in 1889 by George Eastman that motion pictures to-day are possible. Prior to this time Thomas A. Edison was busy eagerly seeking to depict pictures in motion. He lacked, however, the medium of the flexible film to perfect his invention. This the coincidence of the Eastman discovery solved. The nitro-cellulose film base proved to be the "missing link" for which Mr. Edison had been looking.

What Mr. Eastman contributed toward the invention of motion pictures may best be told in his own words from a quotation in a letter which is now a permanent record of the Society of Motion Picture Engineers. In the first part of this letter he tells of his discovery of the nitro-cellulose film support and the establishment of the first factory in Rochester to manufacture this product in 1889. Continuing, he writes:

> While we were engaged in fitting up this factory I received a call from a representative of Mr. Edison who told me of Mr. Edison's experiments with motion pictures and how necessary it was for him to have some of this film. The idea of making pictures to depict objects in motion was entirely new to me, but of course I was much interested in the project and did my best to furnish him film as near to his specifications regarding fineness of grain and thickness as possible.
>
> As far as I know, the film we furnished him then and from time to time later was satisfactory. In the years during which the motion picture industry has been developed, we have made many improvements in the way of fineness of grain, photographic quality and uniformity, but the film made today is substantially the same as the first film furnished Mr. Edison.

All the experimental film which was furnished Mr. Edison was negative film. Special film for printing positives was not made until 1895. The

output of the Eastman factory in that year was 21,663 feet.

Research Work of Eastman Kodak Company

As the motion picture industry progressed, the Eastman Kodak Company realized what great dependence the world placed upon its product. In order to keep the art in an ever increasing state of improvement, the Eastman Research Laboratories were established in 1912, and ever since have been the only place in the world where all scientific phases of the industry are continually and carefully studied. The thoroughness with which the field is covered may be gathered from the fact that, while the company makes no professional motion picture cameras or projectors, it tests every known make and offers suggestions for improvement to manufacturers.

Further laboratory researches include the cause of electrical markings on film during exposure, improvements and increased efficiency of developing and printing processes, method of waxing the edges of new prints to prolong their life, optical examinations of screen surfaces, proper illumination of theaters for visual comfort, causes of film mutilation and how to prevent it, data on the photographic efficiency of various light sources and active co-operation in the solution of all problems which have any direct bearing on the art.

Making Motion Picture Film

The two principal ingredients entering into the manufacture of motion picture film are cotton and silver, the former for making the film base or support and the latter for making the sensitive emulsion. Nearly five million pounds of cotton are consumed annually in the manufacture of film base, and, next to the Government Mint, the Eastman Kodak Company is the country's largest consumer of pure silver bullion, the requirements for making sensitive emulsions being in excess of three tons per week.

The cotton is first treated with caustic soda to remove all traces of vegetable gums and other impurities, a preparatory step necessary for treatment with nitric and sulphuric acid. This process is known as nitration and reduces the cotton to what is technically called cellulose nitrate. While not altering the physical appearance of the original cotton, nitration does, however, change it chemically.

Nitrating centrifugals are used for this purpose. These machines consist of "perforated baskets" rotating inside a vat. The cleansed cotton is fed into the basket and acids let into the vat until the cotton is immersed. After allowing sufficient time for nitrating, the acids are drawn off and the basket rotated at high speed for draining.

To rapidly remove the remaining acid the nitrated cotton is then put into centrifugal washers. After washing in these machines it is immersed in large tanks of water and drained and rinsed over a period of weeks. Before dissolving in the solvents it is placed in centrifugal wringers rotated at a high rate of speed to remove the water.

Washing and drying completed, the nitrated cotton is ready for the solvents. These solvents, of which alcohol is the principal ingredient, are contained in "mixers" and the cotton is fed into them through "chutes." In the "mixers"—sometimes called dough machines—large paddles churn the cotton and alcohol together. When thoroughly mixed, the solution is a viscous liquid of the consistency of honey, and in Kodak Park parlance is called "dope."

This "dope" is piped to large airtight tanks, where it is kept ready to

be converted into sheets. This is done on what are known as coating machines, on which sheets 2000 feet long and three and one-half feet wide are formed. These sheets, when dry, become the familiar transparent film backing or base on which the sensitized coating is spread.

The accuracy of these machines is such that the mean variation in thickness of a sheet of base from end to end, when coated, is not more than 1/8000 of an inch.

Silver is the active element in the sensitizing material of the emulsion. It comes in bars of pure bullion weighing about forty-two pounds each. The bars are dissolved in nitric acid in porcelain dishes and after crystallization, pure crystals of silver nitrate are obtained. Other ingredients in the emulsion are potassium iodide, potassium bromide and gelatin. The gelatin, extracted from the bones and hides of cattle and necessarily of the purest possible grade, is dissolved in water, after which the bromide and iodide solutions are carefully mixed with it. To this mixture, heated to the correct temperature, is added silver nitrate solution. The precipitate of the sensitive silver salts is then held in suspension by the gelatin.

This motion picture film base is usually coated with either one of two kinds of emulsion. Negative emulsion is highly sensitive to light and is used in the camera, while positive emulsion, which is purposely much less light sensitive, is used for printing the pictures as they are viewed on the screen.

The actual operation of emulsion making is conducted in silver-lined steam jacketed vessels provided with suitable agitators. Soluble salts formed during the reaction must be washed out of the emulsion. This is accomplished by chilling it to a jelly and then shredding it by pressing the mass through a chamber with a perforated bottom and sides and washing the spaghetti-like strands many times with pure cold water. The shredded emulsion is then melted and coated on the film base.

THE FINISHED PRODUCT

For this operation special delicate machinery is necessary in order to carefully control the thickness. As the film is coated, it is carried in large loops to the chilling rooms of regulated temperature to set and harden or become "conditioned." When thoroughly dry, motion picture film in rolls three and one-half feet wide and 2000 feet long is automatically cut in strips of the standard width of $1\frac{3}{8}''$ and wound in rolls varying from 100 to 1000 feet in length.

The final operation is perforating the film, where accuracy is of the utmost importance. This is accomplished at Kodak Park only by constant vigilance on the part of experts who keep the machines at the highest point of precision and who are constantly on the alert for possible improvements.

Even such an apparently small detail as the shape of the perforation has been minutely studied, with the result that the Eastman type of perforation allows the film to pass through the projector so smoothly that projection is immeasurably improved and wear and tear on the film considerably lessened.

After perforating, the rolls of film are taken to the packing room to be wrapped in selected chemically pure black paper and are then packed in metal cans carefully sealed to keep the contents air- and light-tight. The cans are stamped with the emulsion number and footage and are then placed in straw-board containers ready for shipment to the motion picture studios and laboratories of the world.

The Eastman Kodak Company has

thus pioneered the manufacture of motion picture film, and has been intimately identified with every step in the photographic development of motion pictures since their inception.

COLOR PICTURES

Among these developments is panchromatic negative film, which records all colors in their true black and white relationship, as the emulsion is sensitive to reds and yellows as well as blues and violets. Its use is invaluable when photographing colored sets or costumes and for accurately rendering flesh tints in close-ups.

A large proportion of the more elaborate screen productions of recent releases were made on panchromatic film entirely, and could not have been so pretentiously produced without it.

Although panchromatic film is strongly sensitive to red, yellow and green, it remains more sensitive to blue and violet, especially when photographing by daylight. To correct for this extra sensitiveness to the blue and violet, color filters are used before the lens. These filters consist of thin sheets of dyed gelatin cemented between two pieces of optical glass. Yellow filters are most commonly used with panchromatic film, as they absorb a definite portion of the violet and blue light to which the emulsion is most sensitive, thereby equalizing the exposure for all colors. The result is a more accurate rendering of the tone values of the subject.

Panchromatic film under special treatment can be made hyper-sensitized, which increases the red and green sensitiveness of the film three to four times. By using this hyper-sensitized panchromatic film and a deep red filter, exterior effects closely resembling those obtained at night can be secured by daylight, thus avoiding the use and expense of elaborate lighting equipment.

In order to obtain more pleasing effects on the screen, prints were often colored in the laboratories by treatment with various chemical solutions. It is now rarely necessary for the laboratories to assume this extra operation, since positive film on tinted support or base has been supplied by the Eastman Kodak Company for several years. This tinted stock is printed and processed in the usual way and is supplied in nine standardized colors.

USE OF "SAFETY FILM"

Another development is that of cellulose acetate film, commonly known as Safety Film, for use when pictures are to be projected in homes, schools, churches, factories, lecture and assembly halls. The use of Safety Film does away with the necessity of an enclosed booth and trained projectionist.

Eastman Safety Film is also used in the portable amateur motion picture cameras, where its width is 16 mm. instead of the standard 35 mm. In this amateur size it is known as Ciné-Kodak Safety Film, and is processed in such a way that the exposed film is first a negative and then, by reversal of the image, a positive ready for projection in the home. The use of this film by amateur cinematographers is growing rapidly, and the resultant familiarity with cinematographic problems by a larger proportion of the public will, it is believed, tend to secure an even greater appreciation of the professional offerings.

Art and the Motion Picture

By Carlyle Ellis
Producer of Social Service Pictures

IT is frequently said that the motion picture has in one generation of man pulled itself up out of the gutter by its own boot-straps. Admittedly its origin was humble, but it would be truer to say that its rise was made by borrowings from its sister arts. It has taken on the ways of gentility with youthful adaptability, but those ways have chiefly been revealed to it through the eyes and understanding of artists.

The motion picture itself is, potentially at least, both a pictorial and a dramatic art. And it calls on and virtually depends on all the arts. It would still be groping feebly along the road of casual narrative were it not for what it has learned of dramatic structure from the stage play, and it would still be in a very ugly infancy pictorially were it not for the inspiration of painting, sculpture, architectural design and pictorial photography. One may even find it in some debt to music.

Evolution in Motion Studies

As a pictorial art its first lesson has had to be in pictorial composition. It began with none to speak of. It has acquired not only all the traditions of the painters—and even borrowed their subjects, composition and all with excellent effect—but has gone forward to clear new trails; to break the old rules for the sake of new effects. In addition it has had a new and engaging problem of its own—to learn the principles of and begin to apply a *composition of movement.* In this new field the only precedents came from the stage, where characters must be brought on and moved from one part of the stage to another with some degree of pictorial progression.

But the photoplay makers had all outdoors for their backgrounds, as well as stage sets with the depth of a whole theatre. They soon began to find that their carefully developed background compositions were lost or spoiled when the movement in the field of arrangement did not accord in some degree with the scheme of the rest. They learned that, whereas in a still pictorial composition the centre of interest was pre-ordained and stationary, with movement therein the eye followed the action, wherever it was. Thus one had a constantly shifting centre of interest and a stationary centre of interest at the same time and if these two warred against each other there was confusion. For example, if a squad of soldiers marched up a road that disappeared over a hill, where all the lines of composition converged so as to carry the eye to that far point, and a fugitive was seen nearing the top of the hill, the marching soldiers contributed to the excellence of the arrangement and the effectiveness of the picture. But if the soldiers were marched across the road while the fugitive above them went in the other direction, a disquietude was created that evidenced poor art.

Similarly our early directors with their great mob scenes usually carried their human river straight across or straight down the picture, till along came Lubitsch with his swirling, eddying lines of movement all converging at some one point within the frame, and another artistic precedent was set for all the rest of us.

CONTRIBUTIONS OF THE ARTS

These were problems for the artists within the profession—for the motion picture has naturally attracted practitioners of the other arts. One thinks offhand of Rex Ingram, sculptor; of Tourneur, William de Mille, and Fritz Lang, painters; of Schertzinger, music composer and of dozens of stage directors. Lubitsch worked under Max Reinhardt. Wegener and Murnau were developed in the same artistic atmosphere. Several of the directors were formerly writers.

But the important thing is that these men, whatever their professions, were one way or another responsive to the best in classic art and to the most virile currents of contemporary art. Here and there each month, through the hemp of current commonplaces, appears the golden thread of the true legacy and a true inspiration. It may be the work of some obscure cameraman, doggedly clothing with some touch of pictorial beauty a bit of unreal dramatic trash. Or it may be in the dressing of some simple, homely set, with its touches of character that make the room seem that it must surely have been lived in for years by none other than the people of the story. Whatever it is, we feel at once the truth and sincerity of it and are moved thereby. And this surely is Art.

Just as the carpenters of obscure New England villages are to this day cutting mouldings of pure Greek design because more than a century ago two English architects published their studies of the ruins of Athens, so to-day the more or less humble crank-grinder is like to be setting his lights for an effect first presented by the great Rembrandt or seeking in landscape the luminous softness so wonderfully captured by the elder Inness. From all the schools the influences flow to the screen and if we have the eyes to see we will find through many of the mill-run of current attractions an artistry which pathetically often is out of all proportion to the dramatic worth of the offering. And always the discerning will trace an affinity with the creative milestones of the past.

ARTISTIC VENTURES WITH LIGHT

In this matter of lightings, in fact, the makers of motion pictures have pioneered for the artists, as one of them recently admitted to me, saying that he was a constant attendant at the picture theatres for the express purpose of getting pictorial ideas for his illustrations, chiefly in matters of lighting. And the pictorial photographers must admit at least an equal debt.

The speed of motion picture exposure and the uncertainty of the sun's light has resulted in astonishing developments in artificial lighting equipment for photographic work. The electric light available in a well-equipped motion picture studio is measured to-day in millions of candle-power and while the principles of lighting are the same to-day as they were when Rembrandt and Velasquez and Rubens painted, their application is found capable of a hundred new variations, with the great batteries of "hards and softs, of spots and sun-arcs" at the service of the cameraman.

It is chiefly by the use of such lighting equipment that the sculptor-director seeks his worshipped "plasticity." Failing a true stereoscopic effect in film, he models his figures to a roundness with lights behind and above and on either side, softening here and sharpening up for accent elsewhere with a patience and skill inevitably lost on the layman, but contributing nevertheless to his vague and general sense of pleasure.

From the pictorial photographers the motion picture makers have borrowed

one implement of special value—and danger. This is the soft-focus lens, a delicate optical appliance that, by spherical and chromatic aberrations carefully calculated, splits up the rays of light so as to throw several images instead of one on the sensitive emulsion —not exactly in register. The result is a blurring of sharp edges and a loss of finer detail—a simplification that has its equivalent in the canvasses of the impressionist painters. This lens thus gives added emphasis to mass and added roundness to figures.

I have said that its use is artistically dangerous. It is easily misused. With it very lovely and delicate portrait photography, for example, is possible, but such portraits appear strangely out of place when sandwiched in between scenes in sharp-definition photography, so that one guesses the frequent fact that this finely responsive instrument for pictorial interpretation has been used chiefly to blur out the wrinkles of some swiftly-maturing feminine star.

The first use of the soft-focus lens in motion picture photography, by the way, is usually credited to Mr. D. W. Griffith. It occurred at the Triangle-Fine Arts Studio, of which Mr. Griffith was supervising director, but was done by Paul Powell, director, who himself had the lens made (to fit motion picture camera requirements) and experimented with it before using it (legitimately and effectively) to tell an inserted fairy story in an Irish photoplay released by Triangle. It is a grim commentary on the discernment of some of those high in the industry at the time that a leading Broadway exhibitor ruthlessly deleted the whole fairy tale on the ground that "those guys in Hollywood might at least get their stuff in focus"!

GERMANY'S CONTRIBUTION

Radical currents in modern art were first seen on the screen in *The Cabinet of Dr. Caligari*, that strangely arresting German production which attempted with success to give pictorial interpretation of a madman's vision. And mad it surely seemed, yet with a carefully calculated technique and at least one radical departure in pictorial treatment. For the first time on the screen we saw painted light and shade—great, eerie triangular shadows and blazing straight-edged highlights crossed and slashed each other in daring decorative patterns after the futurist mode. Crazy it might be, but we found that our own subdued treatment seemed thereafter dull, stodgy and Victorian, as indeed it was. We had accepted the English tradition of low-key backgrounds and here was something far more virile, youthful and compelling.

Thus was paralleled the eternal conflict between the opposite schools of painters—the academicians with their subdued gentility and the young radicals with their gay and reckless love of pure color and their quest for the blaze of sunlight in paint.

This new influence from Germany, seen also in later releases, had its effect on our own men. And Lubitsch and others came over to re-enforce it. There has as yet been no American "Caligari," but we are constantly learning the value of pattern in vigorous chiaroscuro. We are less fearfully attempting broad and daring pictorial effects—no longer terrified by shadows.

All of which is traceable—if it seemed worth detailed tracing—to the swift currents of contemporary art that are running parallel to the pictorial development of the motion picture.

ARTISTRY IN SETTINGS

Another branch of art that of necessity has come within the camera's eye is that devoted to the furnishing and decorating of rooms. In the early days of the photoplay our backgrounds

were painted drops, cheap stage sets, usually quite tasteless and giving little or no chance for lightings, even if the cameraman had known of anything but the straight front lighting of the early stage.

The prosperity of the film industry allowed more and more elaborate settings. The producers at last permitted real sets with practical doors and windows and tasteless lavishness of furniture. There was little attempt to be true to period or to any architectural style, and any suggestion to employ decorators or architects of taste and knowledge would have been scoffed at.

But that too had to come and to-day we are being coaxed into the erstwhile nickelodeons by their "sets by Urban" and the like. Good taste is no longer a sensational rarity on the screen. Architects of rank are checking and designing with an army of research workers and draughtsmen at their call. Even furniture is frequently designed and built for a photoplay and it would scarcely be worth a press agent's paragraph if real Gobelin tapestries were used as hangings.

Thus not only is the technique of all the arts being applied in the service of those "better pictures" of which we hear so much, but the art product of all the ages is being drawn upon to give pictorial interest and beauty to the scenes themselves. And we are rich beneficiaries.

Music and Motion Pictures

By Hugo Riesenfeld
Former Managing Director of the Rivoli, Rialto and Criterion Theatres, New York City

IF it were possible to see at a glance every city of 50,000 inhabitants and over in France, Italy and Central Europe, one would be struck by a certain similarity. However widely these cities may differ in architecture, in language, in the appearance of their people, they have one element in common. Each has its own municipal theatre where the entire population goes regularly to hear opera and light opera. And each has its promenade concerts where the symphonic works of the great masters are played.

Here in the United States we have no such institution for developing an appreciation of good music among the people. With the exception of the Metropolitan, the Chicago Opera Company, and one or two touring companies, we have no organization which furnishes us with operatic performances. We have twelve symphony orchestras of first order for a population of one hundred million.

Were it not for a substitute that has sprung up in the last twelve years or so, a vast number of Americans would never hear the finer musical works. This substitute is our motion picture theatre—an institution in which the United States rules supreme—which more or less duplicates the work of the European musical organizations.

Early in its existence the motion picture discovered that its growth could be materially aided by grafting to itself the sister art, music. Each of them has benefitted. Whenever there is a film theatre of any size, there is now a good orchestra. When one considers that there are about 18,000 such theatres in the country, one realizes what an influence the industry can exert on the musical life of America.

The development of motion picture music in the short space of ten or twelve years has been remarkable. Those who were adventurous enough to go to the much-maligned movies a decade ago will recall what a miserable musical accompaniment was furnished. A single pianist drummed mechanically on a tuneless instrument. The same threadbare melodies tinkled in one's ears whether the screen showed a tender romance or the villain getting his just reward. During the supper hour the music would stop altogether while the pianist slipped out for a bit of nourishment.

Turn the pages from yesterday to to-day. Many of the country's finest instrumentalists are now playing in motion picture houses. The palatial theatres in the larger cities often have orchestras of eighty or more players. They spend hundreds of thousands of dollars annually on music alone. In fact, in some cases the cost of music totals a third of the total running expenses. The best organists and conductors are engaged. Music—and music of the highest caliber—is considered indispensable.

The dignity that has been achieved by the motion picture industry from a musical standpoint is indicated by the important musicians who have entered the field. Henry Hadley, well known associate conductor of the New York Philharmonic Orchestra, appeared on the program at the presentation of *Don Juan*. Such recognized artists as

Percy Grainger, Orville Harrold, Hans Kindler and Sascha Jacobson have frequently played in motion picture houses. Film theatres, because of their ability to pay large salaries, can attract the best musicians, where sometimes concert managements are loath to take the risk.

KINDS OF MUSIC

Motion picture music may be divided into two groups. There is the program music, which includes the overture, solos, ballet and dance music, and the like. And there is the accompanying synchronized score, which forms the background of the film.

As to the former, the taste of the public is in a state of flux just now. American passion for jazz is at its height. The public—at least the motion picture public—cannot seem to get enough of it. It is like a child with a new toy, unable to see anything else.

So, for the time being, jazz predominates in our film theatres. However, I believe it is only a matter of time before the wheel of public favor again turns, bringing the better type of music to the foreground again. Above all else America wants variety, and in time it will again want its jazz tempered by classical music. A jazz selection is old and discarded in a single season. A Beethoven overture or Chopin nocturne is eternally new.

Jazz, that native American product, should by all means be encouraged. It has proved itself worthy of admission to the field of modern music. It has undoubtedly a permanent place in the world's store of fine music. Such modern composers as Gershwin, Harling and John Alden Carpenter have helped to dignify and perpetuate it.

On the other hand, there is still a vigorous minority of theatre-goers who want classical music, who loudly express regret that it has been dropped from some programs. I believe that the motion picture theatre should cater to the desires of this minority. From a commercial standpoint it would be worth while because it would serve to hold these people to the theatre. From an artistic standpoint it would be invaluable, since it would keep alive in this country a love of finer music. There is no reason why classical and modern music cannot be combined on the same program. Some of our finest symphony orchestras do this in the concert halls.

AID TO MUSICIANS

Much has been done by the motion picture theatre already to aid the cause of good music. It has offered to new singers and instrumentalists an excellent means of developing their art. The practical experience of singing before a film audience for a week is equivalent to months of secluded practice at home. It develops poise and stage presence, so that when the performer is at last ready for his ultimate goal, the opera house or concert hall, there is less probability of stage fright.

As a training school for singers, America's motion picture houses more than take the place of the provincial opera houses of Europe. The standards of the former are higher in most cases, and certainly they offer better compensation. Salaries for soloists at the major metropolitan theatres range from a hundred to four hundred dollars a week. This money enables numbers of new performers to continue with their studies, where without such financial help, it might be necessary for them to give up the struggle, with success a short but unspannable distance away.

A number of successful artists have graduated from the motion picture stage to that of the coveted Metropolitan Opera House. Among those who

served their apprenticeship in the film theatres are Mario Chamlee, lyric tenor, Anne Roselle, dramatic soprano, Vincente Ballester, baritone, Jeanne Gordon, contralto; also Mary Fabian of the Chicago Opera Company and Emanuel List of the Berlin Opera and La Scala, Milan. For the young and striving artist, this is an invaluable stepping stone to a broader career.

ARRANGEMENT AND USE OF SCORES

Now as to the scores. The hit-or-miss musical accompaniment furnished by the bored pianist in the old days has long since been abandoned. Nowadays no important picture is released without a specially prepared score. Nearly every large theatre has a musical director who arranges the scores of the lesser films from week to week.

Infinite care is taken and sometimes weeks spent in the preparation of a score, so that every emotion and every bit of action on the screen will be exactly reproduced musically. As long as six months has sometimes been spent on certain of the more important scores.

The chief difficulty in score writing or arranging is keeping the music subordinate to the action on the screen. It must never obtrude itself. The audience must never be conscious of hearing a familiar tune.

To achieve this, the musical director who is obliged to prepare a new score every week must have at his disposal a limitless supply of music. For this purpose the metropolitan theatres maintain enormous libraries, some of them containing 25,000 pieces of music. These are all catalogued, not only by titles and authors, but also by the type of emotion or kind of action which they suggest. When the score writer wishes a piece of music giving the atmosphere of the opening scene of Macbeth, he refers to the sections marked "Witch Dances" or "Ominous Music." In the same way he may instantly put his hands on music which suggests the sound of an aëroplane, anger, a runaway horse, a canoe drifting down a quiet stream.

A staff of trained librarians is required to keep this stock of music constantly replenished with fresh works. The larger musical publishing houses have a standing order to send everything that comes off their presses. Material is sought in France, Germany, England, Italy and even the Orient.

The musical stores of every country are assiduously combed for melodies that will create just the right illusion. When that remarkable film *Grass* was being prepared for public presentation, the services of an authority on the music of Eastern tribes were called upon. For *The Vanishing American*, rare and little known songs of the Indians were utilized. In *Deception*, original music written by Anne Boleyn and Henry VIII was dug out of the forgotten archives.

The compiler or arranger of scores searches down every possible alley, in every corner for something that will give just the right effect. He knows the vital importance of an appropriate score. A good film can be made even better by a good score. An inferior film does not seem nearly so bad if it has an excellent musical background.

In preparing the music for a film, the director first has the picture run off while he makes notes. He then consults his library for selections which he believes will produce the proper atmosphere. With these before him he again calls for a running off of the film, and working at a piano, he tries out the music he has selected. Now and then he presses a button which notifies the projectionist to stop the machine while he looks for a different number or makes further notes. After the music

is assembled and timed to the film, it is turned over to copyists who prepare a complete score for the musicians. Usually three or four days are devoted to rehearsals.

Very often, if the arranger cannot find satisfactory music for a certain bit of action, he is obliged to compose some himself. The musical ability required for this work is of such a high caliber that only the larger theatres are able to afford it. It cannot be expected that the musical head of a theatre in a small town will be able to write as good a score as an expert employed by a metropolitan theatre. For this reason many scores are syndicated, and sent with the film all over the world.

The most recent developments along the line of making the best music available to smaller communities is the Vitaphone. This invention is the best so far in reproducing synchronized music and films. It makes it possible for artists and orchestras of the first order to be heard in the smallest towns. The reproduction of the voice and music is very fine. It seems almost as though the performers were in the same room as the listener. It is not probable that the Vitaphone will ever entirely replace the orchestra, but it does make it possible for certain films requiring the finest musical accompaniment to be shown in places where there is no orchestra available.

FIELD FOR COMPOSERS

Before leaving the subject of scores, I wish to touch on a matter about which I have often been questioned. That is: Do motion pictures offer a new field for composers? What future does this new art form offer to the creative musician? Tales have been spread of fabulous sums paid to certain composers for original scores. It is true that a few of the larger films have employed composers for original scores, but these can almost be counted on one hand. *Civilization*, *Puritan Passions*, *The Thief of Bagdad*, and *Little Old New York* are among them. At present, at least, the field is too limited to insure a promising outlet for composers.

There is also this difficulty: The average super-film, which lasts about two hours, requires as much music as an opera. Think of the physical effort of writing such a work! The life of even important films hardly exceeds two years. It is then put aside and forgotten, except for rare revivals. Will the composer of first rank be willing to devote his best effort and energy to something whose death is doomed before its birth? From what I know of composers, they would rather starve with the hope of creating a great symphony that will live through the ages, than grow fat off the proceeds of an excellent but short-lived film score.

If, however, the film world has not made serious inroads into the ranks of the better composers, it has encouraged a larger number of Americans to take up music as a profession. A short time ago the life of a musician—an orchestra player—presupposed great financial sacrifice. Even the first-rate symphony player did not earn as much as the average second-rate business man.

GROWING DEMAND FOR MUSICIANS

With the growing demand for musicians, however, their value has gone up. The musician to-day is in demand as he never was before. Think of the army of them necessary to man the orchestras in our 18,000 film theatres, to say nothing of the requirements of the dance halls, cabarets and legitimate theatres. The American musician has become a commercial asset. In the larger of our motion picture theatres the minimum salary is eighty-three dollars a week, and almost half of the

players get one hundred dollars. First stand players and concert masters usually are paid from $7000 to $10,000 a year. The organists get from $6000 to $20,000, depending on their individual performances. Is it any wonder with our American love of luxury that the ranks of musicians have increased so enormously during the last few years? We have more musicians and better ones. Men who are naturally musical are no longer forced to become clerks or traveling salesmen in order to earn an adequate living.

AMERICAN LEADERSHIP

In this country we are supreme in utilizing music in the motion picture theatre. While traveling in Europe during the past summer, I saw little that could compare with our methods of presentation. European countries themselves are aware of this and are beginning to send over representatives to study our methods. Theatre owners abroad are amazed at the way we use music in our houses. They are eager to learn from us. They are engaging our conductors to go over and take charge of presentations in their theatres.

By no means do I wish to imply that America has achieved the peak musically, any more than it has reached the limit in the development of motion pictures. There are still limitless possibilities. It is certain that the next decade will see still greater strides made by the motion picture industry. Lately large Wall Street banking firms have been allying themselves with motion picture companies, thus demonstrating their faith in the industry. With millions invested, great progress is certain. And there is no reason why music, now inseparably linked with motion pictures, should not also benefit.

Motion Picture Lighting

By Alvin Wyckoff
Director of Photography with Thomas Meighan, Famous Players–Lasky Corporation

IN the beginning of the making of motion pictures, as in all other efforts of photography, methods of lighting were crude. Those interested in the science of photography as applied to the motion picture were early called upon to reproduce pictures more true to conditions of actual life and natural surroundings, together with such artistry as would make the screen production more pleasing or unpleasant, as the story demanded.

For some time the natural light of day was the only illumination to be had. As in the portrait studio, the operating rooms for the making of interior scenes were constructed with a view to obtaining the best possible light, reflected from overhead or from the full source of sunlight, according to the degree of contrast desired. Accordingly the finished result was either flat or full of sharp contrasts. As the industry perfected the quality of its product, experiments were made with artificial light, principally in order that working hours might be increased. This business expedient was accompanied by a rapid artistic and mechanical development.

The legitimate theatre at this time produced and controlled the better degree of entertainment because of its then greater perfection of lighting equipment. Scenes on the stage were unfolded with a telling effect that was more visually impressive than the scenes of the motion picture. The lighting of the film dramas lacked point or distinction; daylight was used for night and day scenes alike, and storms or fair weather got the same treatment of illumination.

Adoption of Artificial Lighting

The advance finally gave way to many methods of artificial lighting. The Cooper-Hewitt mercury tube came into general use, and while it gave forth a strong actinic light it possessed a very short penetrating range, so that in the area required for a "set" accommodating several actors, large banks of tubes were required to give the requisite illumination. The effect was pleasing in the result, and is still abundantly used for producing a general flood of light.

Because of this development, where studios were formerly built with glass roof and sides, they are now constructed without any provision for admitting light except in such parts as are intended for administration purposes. Some studio stages located in California, where the weather is more or less consistent, are constructed of iron girder frame with glass roof and canvass sides, creating a softly lighted interior, but in almost every instance an equipment of the Cooper-Hewitt system is also installed, or some similar system of artificial lighting to enable operations to continue through the hours of night.

With the advancement in perfection of the Cooper-Hewitt, it was necessary to introduce a method whereby light could be projected through the illumination of the Cooper-Hewitt light that would "round out" the scene with degrees of contrast, so controlled that the effect obtained would render a natural impression. For this purpose the spot light was adopted, ranging in power from the tiny arc with a carbon

no larger than a small pencil, generally used to portray a lighted candle, to the immense and powerful searchlight that would produce the effect of bright rays of sunlight. With this perfection it has become possible to project scenes upon the screen that are bewildering in their natural fidelity.

The lighting equipment of the modern studio is a cumbersome apparatus. While it can generate any desired quantity of light, at the same time it creates a very uncomfortable heat and blinding glare that often causes temporary injury to the eyes of the performer. It appears that the ultimate light unit to be achieved will be one of powerful actinic value that will not be blinding in its effect on those working within its radius and generate an unnoticed unit of heat. Such a light must be portable to such an extent that it can be transported without the extreme difficulty and expense it now involves.

DIVERSITY OF LIGHTING PROBLEMS

Every motion picture "set" requires its separate problem of lighting and the effort will range from the most simple lighting requiring only one unit of light to the huge effort requiring the entire equipment of the producing company, under control of the most expert electricians. A special conference of department heads is often called with the purpose of arriving at the best possible solution of lighting a set. Colors must match, architecture must be harmonious and not impose distracting elements in the scene, and costumes, furniture, time of day, weather conditions and prop lights and lamps must all be considered in building up the right lighting plan. Days of preparation with a large detail of assistants and an enormous amount of apparatus are often necessary.

The temperamental reaction desired and the mental impression to be conveyed to an audience are to a degree dependent upon proper lighting. An improperly lighted scene will produce an unconsciously distressing effect, even sometimes producing a condition of restlessness that retards the clear interest of the story. The work of a clever performer can be greatly handicapped if the scene is improperly lighted. The scene may seek to give an impression of happiness, but if poorly lighted, so that surrounding details are dark and gloomy, it measurably defeats the intention. With the scene softly and brilliantly lighted, however, the spirit of mirth and enjoyment is convincingly transferred to the audience.

In contrast to what has just been stated, the surroundings of a scene, where the action is intended to impress the beholder with a gloomy situation, must be lighted with highlights and shadows in contrast, balanced to the action and mental quality it is desired to produce; an uncontrolled flood of light here would be fatal and unimpressive. Scenes protraying incidents of romance demand their special treatment according to their settings, the period of time to be represented and the artistry that is relative to the situation. A squalid den can be artistically lighted so it will be pleasing to look at and yet carry conviction that the romance is taking place in a den where temperaments of passion are rife. The same method of lighting could not be successfully used for a representation of two lovers in a conservatory adjacent to the ball room of a palace, at the height of a festival.

The lighting of exterior night scenes, made outside of the studio, have many difficulties, with each scene presenting its individual problems. Separate treatment is demanded according to the character of the situation, just as those made in the studio where all fac-

ilities are at hand. The matter of transportation for these exterior locations is sometimes a very serious problem and often entails the combined efforts of several hundred men. The emotional matter the scene is to portray—romance, comedy or tragedy—controls and is the key to the lighting here, as in the studio, but other factors have to be taken into consideration.

The condition of the weather necessary to the action of the story must influence the lighting. It may be moonlight and peaceful, or dark and calm, or the night may be one of storm, or the sequence of the action may call for all the elements in succession. The season of the year may be represented as winter or summer. There may be street lamps, the light of open windows or doors or flashes of lightning, burning buildings, camp fires, or explosions, all of which will affect the source of lighting. The sensitiveness of emulsion and exposure will be of much more importance in rendering such action than is usual in the studio, where the light is more easily controlled.

An action covering a large area will require a huge electrical equipment, where in another instance a scene covering a like area, such as the main business thoroughfare of a city, will require no electrical equipment whatever. It is the difficult portability that makes the present system of lighting exterior night scenes very laborious, unless the scenes are of such a nature as can be handled in miniature. A splendid example of such work was done in the German picture *The Last Laugh* and in the Thomas Meighan production of *Tin Gods*.

A much greater quantity of light must be used on exterior night work on account of the lack of reflecting power and the greater amount of absorption. Daylight exterior scenes require the least effort to light on account of the vast amount of natural light. It is seldom necessary to use an auxilliary of artificial light, but reflectors are used to soften the shadows and to "build up" grey tones in the shade of trees or shadows of buildings. The light of early morning and late afternoon renders the most pleasing effects when the shadows are long and the highlights are soft.

Lighting for the motion picture has advanced in great strides in recent years, impelled by the competition of several large producing companies. It is still in the experimental stage, however, with much to be accomplished. While the foundation of the photographic art, it has not kept pace with its mechanical mediums and yet wants an inventive genius willing to devote his energy to a simplification and perfection of present methods and equipment.

The Motion Picture in Science

By S. Philip Goodhart, M.D.
Professor of Clinical Neurology, Columbia University, New York City

Cast me out of the Garden of Eden if you will, but first let me taste of the tree of knowledge.

THE production of the cinema has greatly contributed to that which in its accumulative influence is the most priceless of all human possessions—knowledge. As an educator it is catering daily to the intelligence of millions. Unparalleled in their power to almost spontaneously flash before the entire civilized world the happenings, opinions, events of great magnitude, appeals, indeed all things that are of interest to mankind, stand two recently developed agents: the cinema through the eye; the radio through the ear. Time and distance play no rôle.

Varied Uses

The importance of the cinema in the social, economic and intellectual life of the world can scarcely be realized. It is estimated that about one hundred million people weekly patronize moving picture houses in this country alone. There are countless pictures which are primarily intended for entertainment yet have within them instructive value—moral, scientific or historic. The very fact that they are ostensibly entertainment pictures makes more acceptable their instructive content. For example, an educational reel makes geography interesting as well as instructive, and so even the medical student finds the cinema of great value in his grasp of anatomy, clinical medicine and surgery. The primary purpose of the motion picture is to provide entertainment in the leisure hours of the people; recreation and diversion from life routine is necessary for the development of the race. Greece was at its height at a time when the drama and athletics had their most flourishing periods. Indeed, recreation and diversion from the monotony of everyday life is a necessity in the prevention of abnormal fatigability and indeed for the preservation of social order. The hard grind of routine study only too often results in early nervous manifestations among students and the introduction of moving pictures with its element of interest in visual portrayal is a form of pedagogy with evident advantages.

An old Chinese proverb says: "One picture is worth more than many thousand words"; how much greater in value, then, the cinema! It presents more than mere pictures—rather actual experiences of living beings. Indeed the cinema as an educator almost rivals the library. Books on scientific subjects enabled men to obtain a certain amount of knowledge through close application. The moving picture presented for amusement is making it almost impossible for the average man or woman to remain ignorant. The use which the industries themselves have made of motion pictures is already astonishing. Employes are in this way taught the best methods of operation; films are teaching safety devices; conservation of energy; encouraging mental hygiene. Almost every industry and branch of science has its film representation. Even in the pictures shown apparently solely for entertainment, art, industry and science are not neglected. The films *Men of Steel* and *Steel Preferred* graphically illustrated

the production of pure steel from the common ore, and so with countless other productions.

A scientific study through the moving picture industrial activities has brought about a tremendous economic gain through observations showing useless expenditures of energy. For example, a girl employe was filmed at a desk writing in a large book. The inkstand is at her left. Each time she dips the pen in the inkwell she must reach across the desk. The picture was made with the inkwell at the right and at the left. An efficiency expert caught the extra motion and the inkwell was moved to the right. In a week's time the achievement in the girl's work had increased enormously—over thirty-three per cent. Scientific application of a study of the minutest details in railroad safety devices by slow and normal photography has proved of tremendous aid both for the employe and the public.

The cinema is finding application in every branch of science; phenomena of earth, in the heavens and the depth of the sea are being recorded. The most accurate and extensive observations of the total eclipse of the sun in January of 1924 were made by means of the moving picture camera; the most remarkable solar corona, probably the best eclipse of history, was thereby given permanent record. The graphic revelations of minute detail, enlarged for study and portrayed through microphotography are some of the observations hitherto unavailable for general scrutiny; the study of a drop of pond water teeming with life is presented as a world of miniature and with a vividness hardly appreciated even by the microscopist.

The so-called "Synthechrome" process, developed by the Carpenter-Goldman laboratories, a process for cartoon and technical animation and color, has made it possible to secure sharp outlines, definite colors and complete detail in drawings. Imaginary lines, movements, etc., may be differentiated from the visable elements of a diagram; electrical, magnetic and mechanical phenomena are thus easily visualized and physiological and biological facts demonstrated. This process is also being used largely in the study of medical subjects. Just as the drop of water with its abundance of living matter is studied under the microscope and filmed for further study, so the red blood corpuscles of the human being, as well as the various forms of micro-organisms and their movements and changes, are enlarged for screen study and demonstration.

MEDICAL AND SURGICAL VALUE

In no branch of science does the moving picture offer greater possibilities than in medicine and surgery. Its application in this field opens a vista of great depth.

As a means of graphically recording histories as embodied in the film patients, as well as for the purpose of recording and studying deformities of motion, moving pictures are unique. The unraveling of the mystifying appearances of motor disturbances of the nervous system can be accomplished only by methods other than those afforded by the unaided eye. A direct approach to this study is furnished by means of the normal and more particularly by the slow-motion camera. In an attempt to analyze and record disturbances of motility, one is impressed by the inadequacy of our nomenclature for describing certain forms of abnormal motion, and words and phrases in common use are not only nondescriptive, but as terminology they are nondescripts. Just as the slow-motion camera has been utilized in the study of the curves of high explosive projectiles, so in medicine have

the elements of abnormal movement been studied and analyzed for interpretation. Indeed, the revelations of the camera by slow-motion pictures have brought out some phenomena hitherto unknown to exist.

For diagnosis, this graphic visualization is of the greatest importance and for records it is absolutely unparalled. Its accuracy is unquestionable. Two explorers who find a new land would be unlikely to describe it alike upon their return. Words are inadequate to record new or strange impressions; one must study the scene time and again under the same conditions with exactly the same movements in order to properly develop the details. If a peculiar muscular movement is discovered in a patient, no two people would identify it alike; no picture in words can take the place of the picture seen with one's own eyes. One rare operation in New York, Paris, London or Vienna, instead of being accessible to only a few, is, through the medium of the moving picture film, made an open clinic for medical students throughout the world. The classes of a small and ill-equipped medical college in a remote locality thus observe advanced surgical technique which otherwise could be gained only through years of postgraduate study abroad. Already surgical films are being completed, demonstrating the particular skill of some eminent teachers especially noted for a particular branch of surgery.

The life long acquisition of a surgical technique, the demonstration of which would pass away with its possessor, is being preserved for the teaching of future generations by means of film reproductions. Without the moving picture an unusual operation is glimpsed but once and fleetingly; to see one such operation was often the high watermark of a student's career; through the film the operation can be seen and studied by repeated observation. Diseases that may be rare in the Occident, may be common in Oriental countries. The physician in America may here and there see an isolated case of leprosy, for example; he has perhaps only studied the disease from textbooks, but never seen a case. A film library now in contemplation will immediately make available reproductions of a number of such cases imported by film from countries where the disease flourishes. A study of the physiognomy and physical attitudes in the different forms of mental diseases is soon to be undertaken.

At Columbia University moving pictures demonstrated the actual movements of the heart with the organ exposed, in a dog under an anesthetic; under the influence of various drugs it was possible to permanently record and visually demonstrate the normal heart beat and its variations under abnormal conditions. The record was indeed a striking and illuminating one. The experiment has been utilized for teaching and presentation many times since. Then came a most important contribution of great value for future medical libraries from the neurological department of Columbia University and the Montefiore Hospital. Some five thousand feet of film were produced showing both familiar and rare forms of nervous diseases; methods of making examinations and diagnosis; patients showing various forms of gaits; deformities of motion; all these are being used for teaching of students and physicians. These films are being added to with scenes of patients, as interesting cases are accumulated for preservation. This series of films possessed by the writer constitutes one of the finest medical collections extant. It includes some three thousand feet of film in which the patients are filmed in various

stages of the disease known as "Encephalitis Lethargica" (sleeping sickness). These reels within the past year have been shown in Vienna, Paris and London.

One difficulty in the taking of surgical pictures for the demonstration of expert technique lies in the necessary asepsis of a surgical amphitheatre. A special form of lighting and of surgical field enlargement by powerful lenses sufficiently removed from the actual surgical field are yet to be satisfactorily developed. As certain operations are not accessible to the eye of the camera, by reason of their being largely within viscera of the body, these are admirably portrayed in their technique by means of pen and ink drawings, photographed on film. Just as in the public schools and, indeed, in some of the higher institutions of learning, the cinema is visualizing that which heretofore has been obtained in a far less agreeable, less accurate and less retentive way, so in many branches of medicine are anatomy, physiology and microscopic investigation accurately set forth for study.

For example, an excellent group of films accurately sets forth the anatomy of the digestive system and then again by means of animated drawings with beautiful colorings most accurately delineated shows the process of the physiological active digestion. Another film by the same producers clearly defines and classifies the various types of gastric (stomach) ulcers; the cartoons show further how the normal movement of the stomach is affected by disease. A study of this film contribution really furnishes a basis for rational discussion as to methods of treatment: imagine for a moment a group of specialists studying the phenomena of the condition as presented in detail with practically a patient repeatedly exposing the process in a way not otherwise possible. Another valuable contribution is that on "pulmonary tuberculosis" and includes a four-reel film visualizing the anatomy and histology of the lung and the development of the essential lesion known as tubercle. Through the art of coloring, the fluids of the body including the circulatory system can be visualized and studied with interest.

I have just referred to a few of the many possibilities of the application of the cinema in its relation to science. Its use is beyond conception in its possibilities.

Literature and the Motion Picture

By Arthur Edwin Krows
Free-lance Scenario Writer and Film Editor; Author of *Play Production in America*

IF there is one outstanding fact about attendance at motion picture theatres, it is that nobody goes there to read a book. Every patron, consciously or unconsciously, presents himself to see pictures. This fact naturally influences every interpretation of the business. In one direction it impels producers to make thoroughly objective films like *The Last Laugh* and *The Old Swimmin' Hole*, in which there is little or no need for titles or cut-in captions to make their stories intelligible; and in another way, the comparative independence of words leads professors to declare that the motion picture in its best form is apart forever from what is generally called literature.

A number of box-office disappointments and outright screen failures of notable literary works is adduced to support this critical view. These include Maeterlinck's *The Blue Bird* and *Monna Vanna*, Conrad's *Victory*, Kipling's *Without Benefit of Clergy*, Barrie's *Sentimental Tommy* and the eternal *Peter Pan* and many more, the grouped names of which would startle consistent moviegoers. The successes of *The Four Horsemen of the Apocalypse* of Ibanez, the *Quo Vadis?* of Sienkiewicz, and the *Cabiria* of D'Annunzio, attributable largely to their spectacular elements, are not nearly enough to offset the apparently overwhelming evidence that the best written word has in itself very little film magic.

It would appear, therefore, that the conjunction of motion pictures and literature is rather futile—like trying to discuss music in terms of architecture, for instance, or tennis in terms of football. At the same time there are a few angles of consideration that show up the subject differently and make the literary screen play a possibility at least.

"What's in a Name?"

Although literature is a somewhat indefinite word, all definitions are agreed in stating that it consists of printed or written matter. Down the ages, however, a more profound meaning has been given literature until now the use of the term implies not merely words, but exceptional expression of thought. Here we come closer to that great common ground upon which all the fine arts rest—ignoring the particular medium as long as a full and complete impression is produced upon the spectator. In this sense music is literature and literature is music, and all the muses are offshoots of a common root.

The great work of art is made, in brief, not out of the marble, or the pen, paper and ink, or yet the collaboration of dramatist, actor and theatre, but out of the reactions of the audience to which it is presented, and for which, presumably, it was designed. In the last analysis, whether the effect is produced by contemplating a printed page or a statue or a play or hearing a symphony, means very little indeed as long as that effect really is produced. So, when we speak of literature and the motion picture, we are speaking of neither literature nor motion picture, but of admirable thoughts that may

ennoble literature and motion picture equally well.

A majority of persons think of the stage as a word medium and of the screen as pantomime; but neither view is strictly correct. In thinking of motion pictures as essentially pantomime, we have been reminded by many able critics, notably by that man of genius, Charles Spencer Chaplin, that the most crucial moments in life are speechless; but, as indisputable as this is, it has the air of apology for an art that is too great to require defense. The fact of the matter is that, while the primary appeal of the motion picture is to the eye, motion pictures may appeal to the spectator's hearing, taste and smell, just as printed literature may conjure up impressions that are not essential parts of the forms and colors of its letters.

Psychologists tell us that we form complete conceptions of objects only when we have seen, heard, tasted, touched and smelled them. Our conception cannot go beyond this because we have no other senses to which an object may appeal. Indeed, it is within reason to suppose that familiar objects may have unknown aspects that we cannot appreciate on that account. There *may*, for instance, be a fourth dimension. But once we have formed what we call a complete conception, a repeated appeal to any one of the senses concerned will provide the clue from which we may reconstruct with our minds the entire fabric. I have a reasonably complete conception of the typewriting machine upon which I write these lines. I may be in a distant room and hear someone else clicking the keys. This would give me the clue by means of which I might tell you, without changing my position, what the machine looks like.

A story is told about a man who was born blind but who grew to manhood with all of his other senses in perfect action. An operation was performed and his sight restored. As the surgeons were about to remove the bandage from his eyes, a physician who was rather curious about the man's conception of things in general entered the room. The bandages being lifted, the physician held a pencil before the patient's eyes. "I want you to tell me what this is," he asked. The man looked at the pencil with intense interest, then stretched his hands to touch it; but the physician held the pencil out of reach and insisted that he answer by using his eyes alone. The man tried earnestly and then was obliged to give it up. "For all I know," he said, "it may be a horse!" His conception of a pencil was incomplete as far as sight was concerned. Had he held it in his hands, or touched it, he could have identified it instantly.

In motion pictures we may make a direct appeal to the mind through only one of the five senses, namely sight; but we may reach the remaining four by means of visual symbols which the mind may translate for their benefit. In attending a motion picture presentation we really use all our senses—sight, hearing, taste, touch and smell. We do not go to the picture show primarily to hear a symphony, stroke a cat, eat a salad or inhale perfume, but indirectly we may do all these things before we leave. To illustrate with a single hypothetical instance, conceive the effect on the salivary glands of a flute-player when shown a motion picture of a boy sucking a lemon!

Printed literature uses symbols even more extensively—the symbols in that case being words, all of which require translation by the mind before they may be referred to the senses to which they properly belong.

The foregoing facts have been cited just to show that the motion picture is quite as able as any other art to convey the worthy thoughts that a wide sense has attached especially to "literature." The question now arises as to why, if this contention be true, the fine works of Maeterlinck, Conrad, Kipling and Barrie that have been mentioned, should be rated as screen failures?

REACHING THE LEVEL OF INTELLIGENCE

For the most reasonable explanation that ignores questions of whether or not the screen adaptations were properly made, one must look to that huge fallacy that describes the motion picture medium as a wholly democratic art. Spellbinders of the industry shout loudest on this specious claim that the appeal of the silver sheet is for young and old, savage and civilized man, and delight in telling how many times around the globe would go those thousands and thousands of reels intended for all the communities of the world, if placed end to end. If they but knew it, they are hailing the greatest handicap of the art—the very weakness that is spoiling literary works and barring motion pictures from their high estate.

That motion pictures appeal to everybody means, in terms of business, that each picture should be made to obtain the patronage of everybody everywhere. This means, in turn, that every film must be intelligible to everybody; and in order to be that, it must meet *the level of intelligence* of every audience which is to see it. The lowest intellectual level, consequently, is that which governs the character of the appeal to be made. And this is why Adolph Zukor, head of the largest film producing, distributing and exhibiting organization in the world, has publicly found that the average moviegoer intelligence is that of a fourteen-year-old child.

When, for the sake of squeezing every possible dollar out of any film whatsoever, it must be reduced (for reasons which could easily be demonstrated with facts and figures) to a formula intelligible to fourteen-year-old minds, whose experience cannot possibly appreciate the grave and important problems of adult intelligence, there can be little real literature in screen efforts; and the printed literary works, "picturized" or emasculated according to these requirements, cannot in the nature of the case survive the transformation.

There are excellent pictures being made constantly; but even the fairly long and imposing list their titles would make, would be nothing at all to compare with that other list of alleged features that succeeded mightily according to the box-office standards simply because they were better aligned with the unworthy standards of international distribution. Indeed, for business reasons, most of the producers of the good ones would rather forget them.

The solution is, of course, a form of distribution that will not compel every audience to accept the picture produced for another—or, in all events, produced for a great many others. More specifically, a form of distribution that will permit adult audiences to enjoy adult plays and fourteen-year-old audiences their simple action stories. The so-called "speaking-stage" or "regular theatre" has long since been broken up into its vaudeville circuits, burlesque wheels, musical comedy houses, melodrama chains and stock and "highbrow" community theatres. Similarly, the book trade has found it expedient (and profitable) to divide publications for readers of fiction, adult and juvenile,

scientific and the rest. Interesting and valuable precedents for the distributors of motion pictures.

Happily, economic laws are at work to bring the change about—happily because it is exceedingly improbable that the change will be wrought voluntarily, or even without active opposition. The attempt to make one play do for all audiences has stretched the movie formula so far that light shows disconcertingly between the threads. It now fits neither the intellectual audience nor the ignorant, and both are turning away in disgust.

A wealth of illustrations might be cited to support the argument; but for present purposes, it is sufficient to remark thus briefly why it is that great literature is possible to the screen —and why it is that just now the screen displays so very little of it.

The Business of International News by Motion Pictures

By Emanuel Cohen
Editor-in-Chief, Pathé News

SIXTEEN years ago a new industry was established in America—the dissemination of world news through the medium of motion pictures. The evolution of news recording has kept pace with the progress of civilization, for, in a large measure, such progress is dependent upon intercommunication between the different peoples of the world. From its lowly beginning of symbol carving in stone, through the hieroglyphic stage, the ancient papyrus, the invention of the printing press, this business of news dissemination has in the last few years developed a new medium—the motion picture, so that not only can the people of one country be told of the activities and achievements of their fellow men in distant lands, but also they can actually see these activities and accomplishments.

The Pathé News

The evolution of the still camera into the motion picture machine has challenged the art of Michael Angelo, for it paints the drama of moving life with the broad brush of a realism within the understanding of everyone. When, in the early nineties, the new art of the motion picture was developed, mainly due to the inspiring genius of one of America's great inventors, Mr. Thomas Edison, its purpose and scope was conceived largely for the entertainment of the masses. Here and there, at that time, the pioneers of the industry went beyond this scope and directed their lenses on some news events—but only in a sporadic fashion—an occasional glimpse of new possibilities. It was in 1910 that there came the fuller realization of this newly discovered but unexplored field of motion picture usefulness, when Charles Pathé presented for the first time a regular and systematic medium of news dissemination by films. Public recognition of this usefulness has steadily increased, and I, personally, in my twelve years of editorship of the Pathé News, have had the opportunity of seeing the news film grow from a mere exhibition in a few hundred scattered theatres, where it was used mainly as a filler on the program, down to the present day, where the combined circulation of all news films reaches almost ninety per cent of the 18,000 motion picture theatres in the United States alone. It is conservatively estimated that the news film is now seen by forty millions of people a week. Also, we find it now, not merely a filler, but a vital part of the program, an institution recognized by theatre and public alike, as playing an important rôle in news communication and in the life of the nation.

Like the great news syndicates, the Associated Press, the United Press, International News, of whose tremendous service the public is so fully aware, the Pathé News is now world wide, its tentacles reaching into every nook and corner of the earth—civilized and uncivilized—its thousands of lenses focussed on every political development, witnessing the pageantry and the tragedy of every people; peering into the customs and habits of every land; holding the mirror to every phase of human activity everywhere.

Although its purpose is similar to that of the newspaper, the news film plays a different rôle. Its objective is to bring its readers to the very scene of an event, making them eyewitnesses, so that they not only see what transpires but can feel its pulse. The deadly accuracy and the vivid realism of the news film has brought it to the heights of purpose and utility which it now occupies. It has reeled its way into the confidence of millions of persons. Supplementing the service of the country's great newspapers, this graphic portrayal is enabling the public to form clearer judgments of world events and guiding it to more intelligent understanding. The excursion 'round the world on which it takes its readers in the fifteen minutes of each issue, as if on the wings of time, has made it possible for them to see and to become acquainted with other lands. The lions of Trafalgar Square are just as familiar to American audiences as the Woolworth Building to the Englishman. The sufferings of Japan in the tragic hours following the earthquake were felt from the screens of the globe. The remarkable achievement of America's Round the World Fliers was witnessed by Pathé News' readers in every hamlet.

In this article I shall take up first the business of getting the news and later the value of the motion picture news medium in the progress of the world.

GETTING THE NEWS

Daily great newspapers mobilize veritable armies to do battle with the complicated task of catching events on the fly. With hundreds of telegraphic nerve centers covering the world, great press associations never dare sleep in the keen vigil imposed on them by the ceaseless activity of nations. The problems they solve in putting your daily newspaper into your hands are varied, intricate, never ceasing, and yet with the newspapers, two men at the ends of a wire represent in simplest form all that is needed for news transportation across the world. How different the animated newspaper that tells its story with motion pictures. With the news reel, too, all must be subordinated to the law of speed, but it deals in a physical medium and must be gathered and carried by human machines, that cannot ride on an electric current.

Pathé News maintains in all important centers of the world its own staff cameramen. These men are stationed at points where from experience, which has become akin to instinct, news is likely to happen and they are moved about from point to point as the editorial staff follows the broad movement in news happenings. These men are in daily contact with headquarters reporting impending events in their territories so that we learn of them as readily as the news syndicate. The editorial staff in turn refers back to each territory the results of any studies that it may make in digesting news happenings throughout the world. At points where news is less likely to happen, there are a horde of semi-staff men, who, although not required to devote their full time to news work, still are ever on the alert. Then again at points where news is still less likely to happen, we have thousands of correspondents or cameramen who contribute on space rates pictures of events in their territories.

There are as many good definitions of "news" as there have been great editors to present that indefinable commodity to an ever eager public. Yet news has one quality that governs the activities of all who lead strenuous lives in "getting the story and getting it home." News is news only when new to the world, when it can still

thrill, excite, arouse with all the warmth of fresh sensation, when it is red hot from the forge of events.

At this point I may point out that there are three types of news. First, sudden news events like the Japanese earthquake, the Santa Barbara earthquake, or the Shenandoah disaster. These events happen suddenly out of a clear sky, you might say, and with no forewarning.

A recent example of this type of news is the great disaster in Florida, which took the tragic toll of hundreds of lives and devastated a vast area of America's winter playground. The Pathé News' cameraman was on the spot. Injured himself, as were thousands of others by falling walls, he nevertheless stuck to his camera and ground out foot after foot of film as the 120-mile wind swept all around him. It is one of the most spectacular and marvelous pictures ever thrown on the screen. That was not all. It was the business of the Pathé News to show the public the graphic story of this event as quickly as possible. He therefore walked miles with his film and then took an automobile to get to the nearest point from which a railway train could be boarded, out of the stricken area, and succeeded in getting to Jacksonville within twenty-four hours after the hurricane occurred.

At Jacksonville he was met by an airplane which had been engaged and transported to Atlanta, where a second airplane was being held in readiness to transport him to Charlotte. The cameraman had to be physically carried from one plane to another with his precious films in his hands and which he insisted on delivering personally to headquarters. The plane from Atlanta was forced down by a terrific rainstorm near Greenville, South Carolina, from where the cameraman then made a hurried trip by automobile to catch a fast train that took him to Washington. He was met there by another airplane which transported him to New York, thus bringing the first pictures of this terrible event to the screen within forty-eight hours.

Second, there is the field of impending events, which refers to those happenings which occur as a natural result of preceding events. A most notable example of this was the Smyrna fire, resulting from the war between the Turks and the Greeks in 1922. One could not foretell that the Smyrna fire would result, but by keeping close to the news scent of the situation it was apparent that some tragic occurrence was at least very likely, in one form or another. The Pathé News was fortunate in this particular instance, for not even the newspapers kept their reporters in the zone of military operations, so that as a result of our judgment in this field of impending events, Pathé News was able to obtain an exclusive picture of such a tremendous event.

Third, we have the scheduled events. Events which are scheduled to take place on a certain day, such as the inauguration of a President, the World Series, or the Yale-Harvard football game.

To produce successfully a great news reel that insists on the entire world as its stage is to be above all else a good judge of men, to be able to find unerringly the hundreds of right individuals who can be trusted not to quit on the job when the job gets lively, and to build up in these men, scattered to the four quarters of the globe, the personal co-operation, the unfailing esprit de corps that a great organization, functioning always at high pressure in a widely diversified and hazardous field, must have before all else if it is to cheat time and unlucky chance at every turn

—which it must do to bring home first pictures.

Very often I am asked how we are able to get men to the scenes of action in every part of the globe. People wonder as they sit in the theatre how we could possibly have reached the scene of an accident in time to obtain a picture. In answer I may say that in some instances it is by pure accident —the luck of a reporter, who may be walking down the main street very nonchalantly when he sees a building collapse. But in the main it is the result of such a tremendous organization circling the globe, ever on the alert, of careful study and preparation and quick transportation of men and film that makes it possible for us to obtain these pictures.

TRANSPORTATION METHODS

As stated before, the motion picture news still deals in a physical medium. It cannot be wired or phoned. The cameraman must physically transport his sixty-pound outfit from his base to the scene of action. He must get within range of that action. He cannot depend upon hearsay. After the picture is made, he must actually ship it to his headquarters. Special trains, boats, airplanes, the quickest means of conveyance always to the scene of events must be used and then back to headquarters. A careful study and special men trained in the ways and means of quick transportation in all parts of the world are vital parts of a news reel organization. The Smyrna fire film, for instance, was received in New York and released exactly fourteen days after the fire took place, 8000 miles away. This was the result of a special boat chartered for a trip to Italy, where a plane, engaged in advance, was waiting to transport the film to Cherbourg to meet a trans-Atlantic liner. Or in cases of events occurring nearer home, the Santa Barbara earthquake, the inauguration of President Coolidge, the burial of the Unknown Soldier, the World Series, the Shenandoah disaster, the S-51 that sank near New London, or other events, the films were transported by special airplane, with a moment's preparation, to our various laboratory zones. Then again, after the pictures are obtained through such expeditious efforts, there is still the problem of getting them to the theatres so that the public may see this news while it is still hot. In all of these instances, and many more, the prints were shipped from the laboratory zones to the theatres throughout the country so that they arrived, in many instances, from twenty-four to forty-eight hours after the event. The Santa Barbara earthquake, for instance, was shown in Los Angeles and San Francisco the same day, in Seattle, Salt Lake City, Denver, Kansas City, and Omaha the next day, and then the following day in Chicago, New York, Pittsburgh, Philadelphia, etc.

WORLD IMPORT OF NEWS FILM

Now taking up the value and influence of the motion picture news medium in the life of the world. Am I presuming when I refer to what the news film has accomplished and has the power still to accomplish in the way of fostering that understanding and amity between the peoples which statesmen are so eagerly striving for, as the basis for international good will and tolerance? The news pictures are within the grasp of every individual. All peoples, irrespective of thought, race, or creed, find instantaneous expression and common understanding in the news film.

Pathé News in fifteen years has filmed practically every important news event in the world.

At a dinner held in New York

recently in celebration of the fifteenth anniversary of the establishment of news dissemination by motion pictures, a reel of the most important events during these fifteen years was flashed on the screen.

The great poet who sighed, in hopelessness, "O, God, turn back the universe and give me yesterday," had never seen a news film. In this film the universe was turned back and yesterday seen.

The value of the news film was written on the minds of the audience forever, after they traveled back over the years with the news reel. They saw the world before the great war. They viewed the personalities of the world's greatest men who have passed into the Great Beyond. They witnessed epoch-making events, some of which have changed the map of the world. When these pictures were taken they were just simple matters. Now, after surviving the whirlwind of the world's changes, they have a new significance which makes them the stage centers of the most gripping drama ever known.

Just suppose we had had cameramen at Valley Forge! And we could sit here and watch Washington and his freezing army of ragged patriots starving and bleeding for the wealth and freedom which we are enjoying to-day. One hundred years from now our descendants will feel the horror of the Great War and the undying heroism of all who fought in it. Suppose we had had the news film at Bunker Hill! At Lexington! At Yorktown! What an imperishable history for us! Can you imagine being able to witness John Hancock signing the Declaration of Independence or Abraham Lincoln signing the Emancipation Act? It would impress you, would it not? Even if we could witness our beloved Theodore Roosevelt thundering up San Juan Hill, we might feel as though we were being gifted by Providence with unearthly sight. Since 1910, however, such events have been recorded for posterity. The news film has come to be the greatest historian of all. Our presidents, our soldiers, and our public men from now on will live forever. When our grandchildren read in their histories of some great political movement, some bitter struggles, some great victory won, they will look up from the printed word, and see as real as in living flesh the men who did these things. How much better they will be able to understand! And as we viewed this film, *Flashes of the Past*, it made us wonder what the "Flashes of the Future" will be—what Destiny will inscribe on the celluloid pages of history. As the progress of human events marches on, perhaps this very method of news recording will itself be further perfected so as to be of still greater service to the public. Time and space in the transportation of films will be reduced and minimized. Who can foretell but that in our own lifetime we will see the day when motion pictures will be transmitted by the ethereal waves of the radio, so that the public will be able to sit in its favorite theatre and watch the pictures of events throughout the world even as they are transpiring, when the whole world will be linked together in instantaneous understanding.

What Are Motion Pictures Doing for Industry?

By Julius Klein
Director, United States Bureau Foreign and Domestic Commerce

THE answer to this question is absurdly simple in the abstract. Motion pictures are the latest form of silent salesman, not so much perhaps for the goods of some individual firm as for classes and kinds of goods as a whole. They likewise have a tremendous effect in promoting knowledge not only among the buying public, but among the selling members of the various trades themselves as to the processes by which commodities are manufactured, as to factory conditions and as to the mechanisms of distribution, all of which has great "institutional" value as defined in the advertising sense of the word. The effect of this may be shown in a score of intangible ways, as well as in the more direct result of developing trade and increasing sales.

Use of Entertainment Film Industrially

While the industrial film is the essential medium through which these results are being accomplished, it is nevertheless well worth while to consider first for a moment the part which the entertainment film plays along these same lines. In spite of the fact that there is no conscious trade propaganda in the entertainment picture—perhaps indeed partly because of that fact—it is proving a considerable force in helping to arouse on the part of the buying public a desire for the many types of products most commonly shown on the screen. An obvious example of this is the "fashion show," a long and elaborate sequence showing the latest styles on living models, but forming an integral part of the picture. This is a source of never failing interest to the women in the audience and as such is recognized as a definite "production value." It has been used in at least a dozen of the most popular films during the past year, which have been shown to millions of women the world over. Particularly in the country towns, where opportunities of observing up-to-date fashions are less frequent, pictures of this kind play an important part in stimulating interest in good clothes and hence in an indirect way are of marked assistance to the clothing industry.

Exactly this same process is true in equal or lesser degree along many other lines. It is generally recognized that the "movies" have a marked influence on men's as well as women's dress. Furniture of all kinds, automobiles, and a variety of other products are particularly aided through their use in motion picture scenes.

Curiously enough the best evidence of the unconscious rôle which the entertainment movie plays in selling goods comes from abroad. We know from the Commercial Attaché of the Department of Commerce in Rio, for instance, that the use of the California type of bungalow and the outdoor swimming pool in Brazil was really brought about through the showing of these on the screen. Recent styles both in clothes and shoes throughout most of the Near East have been set by American movie stars. Incidents like these plus many others have in fact given rise to the slogan "trade follows the film" and have inspired such a country as Great Britain, where over ninety per cent of the pictures shown are American, to

agitate actively against American movies on the ground that they are causing losses to her trade in favor of American firms in many markets.

There is an "institutional" way, too, in which the entertainment film is becoming linked up with industry. An ever increasing number of "film epics" so called are being produced. While most of these are historical in nature—witness *The Covered Wagon, The Iron Horse, The Flaming Frontier, The Big Parade* and a number of others—a few have devoted themselves to industry. The most recent of these, for example, is one entitled *Men of Steel*, giving an indelible picture of the manufacture of steel and the conditions under which it is made. This picture is being shown to millions of people in every land and even though the industrial angle to the picture is quite secondary to the entertainment angle, it is nevertheless giving them an insight into the steel industry that they never had before. Films of this character, in which industrial processes are accurately and sympathetically portrayed, cannot fail to have an indirect value to the industries which are the objects of such portrayal.

INDUSTRIAL FILM AS SALES-PRODUCING FACTOR

However much indirect influence the entertainment picture may have in bringing industry and its products to the notice of the public, it is through the industrial film that the direct suggestion is made to buy the product of one firm or group of firms or to suggest additional uses to which a commodity or certain allied classes of commodities can be put. Unfortunately there has never been any attempt made so far as I am aware to check up in a specific way the dollars and cents returns from motion picture advertising. Whether this could be done at all with any degree of accuracy is a question, but in view of the remarkable work which our leading advertising agencies have done in the way of estimating the investment value of magazine and newspaper advertising, a similar estimate for industrial pictures would be of great value. At present the only thing we know is that, according to a recent canvass made by the Motion Picture Section of the Department, practically every industry is represented by at least one industrial picture, made either by an industrial firm or under the auspices of one of the trade associations in that industry. Furthermore, each one of these films has according to report proved a good investment judged in general terms, so much so in fact that extensive plans are under way for greatly increased activity along this line in the future.

Now, as suggested above, the industrial picture may be of service to industry in any one of several ways. As good an example as any of the all-round use to which industrial films may be put, is furnished by the sales promotion manager of a large electrical equipment company, who also attests to the difficulty of measuring results with any great degree of accuracy, even though he is certain of the general success of this form of advertising.

Told in his own words:

> We have built industrial films for three distinct purposes. One has been the matter of education alone. For instance, we have depicted the story of the growth and use of electricity. Our film *White Coal* or as the Department has it, *The Story of Water Power*, is a good example. This has been shown in practically every country in the world before groups of engineers, also clubs and consumers. In China it has been put on regular theatrical circuit and in other countries has had some measure of theatrical distribution. Inasmuch as the function of this film is one of good will building, there is little which can be accurately attributed to it.

The second type of film we have used is one which is partly educational and partly specific, *i.e.* while it may appeal to the masses it is built more to show our individual accomplishments in the field of endeavors. Our film *Transportation* is along these lines. It shows in addition to the development of transportation through all stages, a number of machines from each of our main heavy traction electrifications both at home and abroad. This film has been distributed practically as broadly as *White Coal* and is particularly used in countries where electrification projects of a governmental nature are under way to strengthen and give a background of confidence in our possibilities to furnish adequate and sufficient apparatus for their use. Here again, however, the direct measure of its return is impossible to state.

The third method we use is one where films are built to be used with a small portable projector carried by the salesman to customers. This is a case of moving the mountain to Mohammed. Our customers are located so far from the source of the apparatus that it is impossible to bring them to the factory to show them just how our apparatus is constructed. Usually these films show the construction and the main points of advantage of our apparatus. The distribution in this case is handled entirely by the salesman with individual customers or groups of customers' engineers. Here we have found more concrete evidence which actually results in sales attributed to the films themselves than in the other two cases where the application is general rather than specific.

There are several interesting examples at hand as to the use of the industrial picture in pointing out the excellence of some particular product as distinct from the firms which make and sell it. For instance, there was recently brought out a picture called *The Romance of Sole Leather*. The scene opens in a schoolroom with the pupils being told that they must prepare a composition on some industrial subject, the best paper to win a prize. One boy decided to write about leather and stops on the way home at the shop of an old shoemaker to get first-hand information from him. The shoemaker tells the boy the story of leather from hide to shoe with all the steps in between, with the result that the final fadeout shows the boy receiving the prize. All through the picture the thought is brought out in a number of subtle ways that leather is the only proper substance to use for certain purposes. This thought and the evident care and expertness with which it is brought from a raw material to a finished product should certainly have the effect of selling the idea of using leather to any audience before which it was shown. At the same time no manufacturer's name was shown, the sole purpose of the film being to sell the idea of using leather.

A similar idea was recently brought out in the case of paint and varnish. The paint trade got together and organized a "Save the Surface" campaign, the object of this being to show how the use of paint will lengthen the life of any flat surface, whether a house, wall, a piece of furniture or anything else that is readily adapted to paint. One feature of this campaign was the taking of several motion pictures, among them *Don't Put It Off—Put It On*, *Brush Up* and *The Romance of Paint and Varnish*. Of these the last received the greatest distribution. It shows the actual manufacture of paint and varnish from raw material to finished product and it is directed not to the ultimate consumer, but to the dealer, the retailer and the salesmen. In fact manufacturers find this film an excellent medium to teach salesmen more about the product they sell. This film has had wide distribution to schools, colleges, chambers of commerce and the like, there being many requests for it, and according to the manager of the "Save the Surface" campaign, it has played a vital part in

stimulating the sales of paint and varnish. As in the case of the film on leather, no mention is made of the name of any individual paint or varnish manufacturer, attention being concentrated on the product alone.

ADAPTING TO EDUCATIONAL PURPOSE

The adaptation of the industrial film to educational purposes rather than to direct selling is being successfully practiced by a large paper manufacturer in the Middle West. States an official of this firm:

> We have found that many of the publishers who use our paper have no knowledge of the way in which the paper is made, and of the tremendous operations involved in the manufacture of newsprint from the raw materials. We have also found that many large publishers are anxious that their staffs, particularly their mechanical men who use the paper, should know something about how it is made. We, therefore, lend the film which is called from *Spruce to Newsprint*, to any of our customers who wish to have it and invariably receive word that it has been of considerable interest to all who have seen it. We also have quite a regular demand for our films from schools and universities for use in their technical lectures.

A variation of this same idea by another paper corporation in Chicago was the production of a picture entitled *The Romance of Paper*. This picture was first shown all over the United States before local unions of the United Typothetae of America. Distribution was also handled by them and from reports received from them the film was so much appreciated that it led to its showing later before the local chambers of commerce in many cities, as also schools and printing organizations. This picture, however, had a strong institutional tinge, as it identified the concern which produced the picture as a large and influential factor in the paper industry and mentioned many of its brands of paper by name.

A large manufacturer of chemicals not long ago made an industrial film called *The Doings of Turp and Tine*. Why they did this and the results secured can best be told by the advertising manager of the firm in question. He says:

> When we prepared this picture two years ago, we were faced with the problem of educating the users of turpentine to the fact that steam-distilled wood turpentine is a genuine spirits of turpentine and just as satisfactory for their work as the gum spirits of turpentine, which prior to a few years ago, was the only kind available.
>
> We had to get our story across not only to painters but also to distributors, jobbers and dealers through whom turpentine reaches the ultimate consumer. There was the usual prejudice against a product differing from that which had been the standard for many years, and our salesmen found it very difficult to tell the story with words only.
>
> In our picture we made use of animation to portray two painters "Turp" and "Tine" who appear in our advertising. The introduction of humor into the picture helped to secure the interest of the spectators in the educational features, which included a complete description of the methods of producing both gum and wood turpentine and an animated mechanical diagram of the processes followed in our plants. With the cooperation of our entire sales organization and as a result of direct mail and magazine advertising, we were successful in getting the film shown before conventions of jobbers' salesmen, paint clubs, painters' conventions, and to other groups in whom we are interested. Of course, it is practically impossible to trace direct sales to advertising of this kind, but we have ample evidence in our file that the motion picture was one of the most effective means we employed in accomplishing our objective.
>
> Our sales of turpentine have now increased to the point where our present manufacturing facilities are insufficient to supply the demand. This condition is the result of an aggressive advertising and sales campaign of which the motion picture in our opinion played an effective part.

And so it goes. As I said near the beginning of this article, almost every industry has at least one picture to its credit. Agricultural implement manufacturers have produced films initiating farmers into the mysteries of tractors and multiple harrows. *The Story of Steel* has been effectively distributed throughout the world, so much so in fact that a certain brand of pipe has become almost a by-word in Japan. Fifteen prints of *The Story of Bakelite* were originally made, but numerous requests from all parts of the country made it necessary to increase this number to thirty. An enterprising lumber firm in Florida has produced a film suggesting methods of piling lumber in a lumber yard with special reference to fire prevention and the attacks of insects, and the Automotive Equipment Association has brought out a picture entitled, *Ask them to Buy*, which has greatly helped the sale of automobile accessories. A well known typewriter company is now distributing a picture which sells both the firm and the machine it produces, while a prominent bank in New York in showing how bank notes are made contrives to sell its services and those of banks in general.

U. S. Use of Industrial Film

In a larger way, too, the industrial film is coming into its own. The Bureau of Mines of the Department of Commerce has in co-operation with trade associations and firms taken a number of semi-industrial, semi-educational films showing for the most part mining and refining processes of minerals. The Department of Agriculture has a large number of films at its disposal, a few of which have an industrial slant. One of its latest films, called *Roads for All America*, was taken during the trip of the American delegation to the Pan-American Highway Conference held at Buenos Aires during the summer of 1925. It is now being used to inform American firms of road conditions in Latin-America.

Of course, the Bureau of Foreign and Domestic Commerce is essentially interested in the methods and results of the distribution of industrial films in foreign countries. The paint and varnish film, for example, has been shown before a representative audience in Shanghai by the Department's Commercial Attaché, Mr. Julean Arnold. He reports that industrial films are one of the best means of bringing American products to the attention of the Chinese and by this means stimulating sales. He is particularly anxious to secure more of them for similar showings, provided, however, that they do not advertise the products of one firm exclusively. Of other films mentioned above *The Story of Steel* has been distributed extensively throughout the Far East, while one print of *The Story of Bakelite* is in constant circulation in Great Britain and on the continent of Europe and another in Japan. A number of other American films have been shown abroad, but many more of these can find a ready market for exhibition.

The Department of Commerce maintains nearly fifty foreign offices in the capitals and chief commercial cities throughout the world. The men in charge of these will always be glad to report through the Motion Picture Section of the Department as to the kind of industrial films which would meet with success in their territory and to co-operate in making arrangements for their showing. The aid which motion pictures have given to industry along the lines mentioned at the beginning of this article argue for an extension of activity in the production and distribution of industrial films both at home and abroad.

Motion Pictures as Trade Getters

By Frank A. Tichenor
President, Eastern Film Corporation

MUCH has been said about the motion picture as a medium for showing articles of commerce to those who might be interested in purchasing.

The idea is not new, for an ancient Chinese proverb says: "One picture is worth a thousand words."

A one-reel motion picture contains approximately 16,000 pictures, for they run sixteen to the foot and the standard reel contains a thousand feet of film. So, according to the ancient Chinese figuring, a single motion picture reel would be worth 16,000,000 words. I won't go so far as to say that, but motion pictures are actions and "actions speak louder than words."

Selling Powers of Motion Pictures

No other way ever has been devised by man by means of which so many ideas could be so rapidly and so graphically presented to the human mind. That single reel of motion pictures can be shown in from twelve to fourteen minutes and in such a reel almost any sales story may be told. And it can be thus told much better than by any number of words, in most instances, for it can be so taken as to show the innermost secrets of the article which it advertises in a way far more convincing than a salesman's words could be. If the article to be announced is of a nature of which salesman's samples cannot be carried about, as, for instance, large machinery (the salesmen of the Baldwin Locomotive Works of course cannot take their samples with them), foodstuffs of which the value will be emphasized if methods of production are actually shown, and countless other things which can be *shown* convincingly although they could not be *told* with anything like the same effectiveness.

Even our most gifted orators in political campaigns cannot put a million six hundred thousand words across into the mind of a listener in twelve minutes, and, if he could, it would be some time before he would be ready to tackle another "prospect" at that rate of speed. Both his first possible customer and he himself would be in a hospital at the end of the sales talk—maybe in an asylum! But the motion picture reel, which conveys infinitely better than words could possibly convey all that that vast torrent of descriptive language could express, would be ready at a moment's notice, without a moment's rest to repeat its comprehensive argument; and instead of being ready for the psychopathic ward the person to whom the argument had been first delivered would have been stimulated, interested, benefited, whether or not he became a customer. Not even the genius of an Edison could produce a talking machine which could do in twelve or fourteen minutes what a reel of motion picture film can do.

I have been making motion pictures, now, for sixteen years, for advertising purposes, my attention to the possibilities of the idea having been drawn first by a letter which came to me from Cuba. Before that I had been producing ordinary entertainment motion pictures and we had used in a slapstick comedy, as silly as Hirsch-

field's cartoons or "Boob McNut," as a part of a cartoon-comic, a spanking machine on which, for the delectation of motion picture audiences, first boys and then very pretty chorus girls had been chastised, greatly to the delight of fascinated audiences here in the United States. The picture really showed a girl in tights who stepped on a lever which released a cat which chased a mouse which nibbled a cheese which emitted fragrance which excited a smell-meter which started the machine so as to spank the victim! And the letter from Cuba, written in all seriousness, wanted to know where this machine might be purchased.

If a motion picture could get an inquiry for a machine like that, what could it do as advertising for legitimate and reasonable trade? I had always believed that pictures made better advertising than words—from that minute on I *knew* it.

A salesman can tell a man that his soap will make suds and the man may or may not believe him, if he hasn't the soap there with water. "You *say* it will, but *will* it?" is the customer's natural attitude. If he sees it make suds in a motion picture he *knows* it will make suds. If a salesman tells a man that a certain type of crusher will crack half-ton rocks, the prospective buyer may remain unconvinced; but if he sees a motion picture of it crushing half-ton rocks he knows it will smash 'em. The soap and water a salesman might take along. The rock-crusher weighing perhaps ten tons would be too much for the average man's strength.

A salesman of dynamite scarcely can stand in a prospective buyer's window and hurl a stick at an adjoining building to show him how effective is his product; but he can take with him motion pictures showing dynamite at work on buildings, in mines, in fields, cleaving rock to the extent of half-mountains at a time from the position where God placed it and making it available for man to use (or getting it out of his way), and showing this in such a way that the prospective customer must *know* that he is not drawing the long bow when he tells what his product will do.

But before we go into details about it, let's talk of something softer, less noisy, less destructive except when considered in relation to the pocketbook. I refer to furs.

WHAT COMMERCIAL MOVIES CAN DO

Furs are hard things to sell because they are expensive. A good fur garment is a real investment. Even wives will hesitate before they buy fur garments, for the cost of one will represent a lot of fun of one kind or another if expended in almost any other way. They are like jewels. Many women don't buy jewels because they feel that they can get more real emotion out of spending what they'd cost in other ways.

Nobody knows this better than the National Fur Association. It is made up of businessmen as good and as far-sighted and understanding as any group in the United States. A slump had happened, three years ago, in the fur trade. Perhaps war-time hardupness had lingered as winter sometimes lingers in the lap of spring. At any rate these gentlemen composing this Association, the principal fur wholesalers of the United States, including those who handled raw supplies, who manufactured and who served as the more important jobbers to the trade, felt that something must be done. They realized that the way in which to revive the fur trade was to recall to women's minds the actual beauty of fur garments when actually worn by actual women; that is, when properly

displayed. Such displays they accurately decided were the things which would convince the average woman that she simply *had* to have new furs that year.

I was called in consultation and it was decided that I was to make two reels, that is, 2000 feet, of films of furs in natural colors. Oh, yes, it now is possible to produce any kind of advertising pictures in really natural colors.

I selected the most beautiful women who could be found to fit every garment which was to be displayed. I got real artists to help work out the best ways of making each of these attractive. Models, backgrounds and atmosphere were as much my business as accurate photography. It was my work not only to show fur garments but to show them to the very best possible advantage.

The result was such an advertising picture as was quickly seized on by exhibitors, because of its sheer beauty and appeal to women's hearts, as an entertainment picture. Exhibitors showed it and its fascination for their women patrons was so great that the demand for it from all parts of the country, not as an advertising picture but as an exhibition picture, became as much as they could handle. It was difficult to meet the call for prints. Presently the exhibitors were bidding for the privilege of showing it. The picture played in one of Broadway's first-run theatres for three consecutive weeks and this was a fair sample of what it did throughout the country.

This is important to the manufacturer of any kind of merchandise, but far more important is the fact that, while that picture was showing in New York, sales began to show tremendous stimulation in every New York store where furs are sold at retail. Hundreds of splendid sales, not of the cheaper but of the more expensive grades of furs, were traced directly by the dealers to the effect of this propaganda picture. In many instances I had reports that customers had walked into the shops of fur-retailers asking if they could supply them with garments of particular kinds as shown in the film. If that dealer had not made the special garment which had caught their eyes, they wished to know what dealer had made it. They were fascinated by it; hypnotized; nothing would satisfy them but that special one of the fur garments which each had fancied when she had seen it as displayed upon the living model strutting her stuff in that astonishingly effective motion picture.

The results were really astonishing. Perhaps the dealer to whom a prospective customer applied did not carry the special line described by the fascinated would-be buyer. All right. "If Madame will but give me a day or two"—and forthwith that dealer hurried to the nearest motion picture house where the film was being shown. He then would shop around to find which manufacturer had made that special garment. And you may be sure he found that wholesaler. His business was dependent on it.

In this way the wholesaler found out the influence which was behind his stimulated business in every city of the country where the picture had been shown. Direct inquiries in great numbers went to every manufacturer whose garments had been represented in the film. Hundreds of sales were traced straight to this picture, despite the fact that 1924 was one of the worst years in the fur business, until this influence began to be felt. After that—from October, 1924—business actually boomed in a manner which the wildest optimist never would have dreamed could happen. All records of fur sales

were broken. These pictures made many a good man's pocketbook turn sick and faint; to take a wife into a theatre where that picture was exhibited was to walk into a deficit in the family bank account.

The cheapest garment shown in this film retailed at $300 and the most expensive retailed at $35,000. Direct sales were traced to the pictures in each cost class, and this, by the way, forever disproved the old and foolish thought that motion picture audiences are "cheap." The picture at no point mentioned a fur store or dealer and the exhibiting theatres, therefore, were not "advertising" anything, according to the old idea of what constitutes "advertising." They were merely showing beautiful pictures certain to appeal to every woman in their audiences. They made business for themselves because of the mere beauty of the pictures. Its entertainment value was so high that the exhibitors paid good prices for the privilege of showing it.

The thought behind the use of motion pictures as a producer of sales is that they give the prospective customer not only a full demonstration visual of the product, but they give him a chance to use his own imagination. The motion stimulates the mental processes of the observer and this has been determined by many investigative psychologists. The person looking at a motion picture of an advertised product sees how other people use it, and will forthwith begin to devise ways for using it himself or herself.

It is, too, the very cheapest and most effective form of "demonstration." Perhaps the object advertised can be used in half a dozen different ways. An advertiser can say that in print from now until the cows come home, talking without intermission, and not get the thought across. But if he can show the customer a motion picture that customer will see the object *move* into its different forms, *move* as it is used for each distinct purpose.

Ideas as well as things are saleable by motion pictures as they cannot be sold by printed words. The thought of the New York to Jersey City Vehicular Tunnel was brought up before successive legislatures wherein its advocates talked themselves hoarse, presenting the plan and long descriptive statements of the advantages which the tunnel would assure, but never with sufficient proving power to get the required votes. But millions were involved and unimaginative taxpayers, into whose brains words did not sink deeply, could not get the firm conviction that the tremendous investment would be profitable to *them*. Several times the bill providing for this necessary undertaking, like others calling for large appropriations, died in committee. In 1917 or 1918, however, the bill was put through, which was something of an achievement, but did not assure the building of the tunnel by any means. Before that could even be begun a bond issue was necessary—and a whopper, naturally. Franklin Adams, Chairman of the New Jersey Commission dealing with the tunnel, conceived the idea of convincing the voters of New Jersey of the advantages of the tunnel before asking them to vote upon the subject of the bond issue. How to do this? Obviously through the medium of a motion picture. So a motion picture forthwith was made showing that with the opening of the Philadelphia-Camden Bridge, if the tunnel also was built, motorists automatically drawn through the state of New Jersey would spend enough in that state so that the profit on the business done with them would more than pay the interest on the bond issue. Thus New Jersey would get its vehicular tunnel and outsiders would pay the bills, while them-

selves getting full value for their money.

The trouble with things like that bond issue is to get the average citizen to vote on it at all. He thinks they are too hard to understand—he is willing to leave them to the other fellow. So, also, is the other fellow. So while they do not get what you might call defeated, they certainly do not get used.

But the result of the motion picture campaign was that that bond issue had nearly as many votes, for and against, as the presidential candidate, and the "fors" were numerous enough to carry it by a handsome majority.

There was an idea literally sold to the people of an entire state by means of motion pictures.

Somebody may say that it is not fair to call the sale of a bond issue actual promotion of business. As a matter of fact the sale of such an idea to the people means a tremendous stimulation of business. Contracts must be let for material, labor must be engaged. The people concentrated on the mighty job must be fed, clothed, housed, transported, amused and even doctored and nursed. The result is that the motion picture which has sold to the people such an idea as that of this bond issue has sold prosperity to hundreds, doubtless to thousands of that state's citizens in the case of the construction of the tunnel, as well as having assured immense and advantageous turnovers of money after the completion of the project. A picture having such a result gives thousands employment and puts into general circulation millions of dollars. The money actually spent upon the project is used over and over again and every use of every dollar is a dollar's worth of business. A single dollar greenback may do a hundred dollars' worth of business in a day. That is an interesting thing to think of.

And not all those who thus profit are those close at hand. Materials must be purchased from concrete to nails; machinery must be purchased from shovels to great derricks and other titanic contrivances. The workers consume breakfast food while they are on the job and they wear overalls—fortunately for the manufacturers they wear them out. It was a real stimulant to general trade to start the building of this great public enterprise.

Now let us turn to a very simple definite proposition. Let us consider salt. Everybody must have salt but they do not need much of it. A good deal of salt is produced and the business has not flourished of late years because of overproduction and competition. "Salt," the public thought until recently, "is salt, and that's all there is to it. Just salt." Up to that time the average housewife when she found herself short of salt just asked the grocer to slip a bag of salt into her basket for that day and was content. That she wished any special brand of salt did not occur to her, for she supposed all brands of salt were just alike.

In fact nothing could be further from the truth; but how could she be made to understand that? Not even grocers knew it. A certain manufacturer of a high-grade article decided to endeavor to make housewives and through them grocers ask specially for his fine product. He knew that one cannot rightly say merely that "salt is salt." He knew that there is salt *and* salt and that his salt was *the* salt. But he had great difficulty by any of the means which he had tried in inducing housewives to ask for his trade-marked article. He had not been able to convince them of its superiority or even to convince grocers of it. To all and sundry it was evident that "salt was salt," when, as a matter of fact, he knew that *his* was, but that certain other preparations hardly deserved the name.

Finally he had motion pictures made showing the processes of salt-making. He showed the expert care exercised in refining the crude salt. He showed the processes of handling and how careful and cleanly they all were. He illustrated the convenience and attractiveness of his sales package, and then, after the picture had been made, he concentrated on displaying it to *housewives*—he didn't bother about dealers. He knew that if he could get the housewives to ask for his product the grocers would have to handle it.

Fortunately housewives are well organized. In every town and in almost every hamlet of this country are organizations made up wholly of them and holding regular, well-attended meetings. At these meetings he showed his picture and it was utilized elsewhere, in stores and so on, with the result that his sales in the cities where his campaign had been carried out showed an immediate increase, not of ten per cent, or twenty-five per cent, but in some places of eighty per cent!

VALUE OF THE NEWS WEEKLIES

The news weeklies have done more to introduce American products into the outside world than any other influence; the use of American motor cars in American films with wide foreign distribution has so infuriated European manufacturers that they have gone to very great pains to induce exhibitors to cut film stories and even obliterate names and trade marks from some motion pictures.

And the wonderful news weekly pictures have often been of valuable assistance, unconscious and unpaid for, in advertising here in the United States our own home products. Dynamite is an example of this. To the ordinary mind dynamite is a very dangerous explosive, used in blowing rocks to bits upon occasion and sometimes for the purpose of eliminating a prime minister. Such work, with the spectacular uses to which now and then it is put, as, on a recent occasion, when a tremendous explosion was rightly titled, "Moving a Mountain," have given the public a very great respect for dynamite.

The manufacturers of this product have found their sales very definitely widened by the use of scenes showing the useful application of dynamite to the necessary processes of progress and as the result of news-reel pictures have directly profited through increased sales.

Many episodes of everyday commercial, mechanical and industrial effort have dramatic value, quite as great, perhaps, as incidents of social, sporting or professionally spectacular life, and the business man whose workaday existence produces them is worse than foolish if he fails to get the advertising value out of their fascinating interest through the medium of well thought out and perfectly executed commercial films. Direct sales of dynamite which could be traced to the showing of the films have been innumerable and of an immense aggregate financial value. Such scenes have suggested to men, accidently members of audiences before which they have been displayed, more than one new use for high explosives. The makers of dynamite have been astounded by the number of new uses for it which have been suggested throughout the world to people who have seen these motion picture films.

An interesting instance occurred recently when the vast fly wheel essential to the motive plant of a great newspaper office jammed and stopped, making it necessary to remove the wheel from the axle. Speed in this operation was everything if the publication of a great newspaper in an interior American city was not to be interrupted.

The wheel weighed several tons and the mechanics regularly connected with the plant could not budge it. But one of the pressmen had seen a motion picture showing a few of the many uses to which dynamite has been put and suggested its trial as a possible solution of this problem. He was laughed to scorn at first, but as the moment approached when the press must be started, the heads of the great newspaper became worried and telephoned to the local representative of the dynamite manufacturers whose product had been shown at work in the film. This man immediately sent a competent workman with the necessary quantity of the explosive. He was an expert at his task, as all the men employed by this greatest of explosive manufacturers always are. A tiny hole was drilled in the solid steel where it would do the most good and in this a minute charge of dynamite was carefully exploded with the effect of a hammer blow more powerful than could have been struck just there by any other means. Instantly the wheel was released and the workmen were enabled quickly to remove it and make the necessary repairs. The newspaper went to press as usual. Thus that motion picture film had sold dynamite far more to the benefit of the newspaper than to that of the manufacturer, in one sense; in another the manufacturer's gain was very great, for how would it have been possible for him to obtain a better advertisement for his product?

"SHOWING" THE CHINESE!

Previous to the war the majority of dyes used throughout the world came from Germany and England. While the war was on, America was forced to produce her own dyes or go without and as necessity was once more the prolific mother of invention, we as a nation made almost miraculous strides. Push the American and he'll accomplish anything.

Presently we were not only selling our dyes in the United States, but we were capturing with them the very large and important Oriental market. China and Japan were compelled to buy of us for they could get no dyes elsewhere.

After the war China, as the result of habit, turned once more to Germany as soon as production in that country was resumed and it looked as if the infant American dye industry was in for a severe defeat. Obviously the Chinese were not convinced that the American supply of dyes would be dependable, now that the emergency had passed, nor that its merits would compare with those of the German-manufactured product. German agents instantly became active and the Chinese began to buy of them.

Our American sales agents, realizing that we had many colors equal in quality to those of the Germans, that our prices were as good as theirs and in some cases better, could not understand just why the Chinese had begun to turn from us. They sent experts to report upon the matter. What they reported was in substance as follows:

"The Chinese, for generation after generation, have purchased of the Germans and the English, and they cannot believe that a country as young as the United States in dye manufacture can have sufficient stability, either as a manufacturer or distribution agent, to continue to supply their market in competition with a revived European industry. They expect American failure to stand up under competition and that, in consequence of such a failure, their customers, including the Chinese, if they buy of them, will be left without supplies and at the mercy of revengeful European manufacturers determined to take toll in the future for all that may

have been lost in the past. It is as an insurance against this that they have gone back to their old sources of supply in Europe."

This, submitted to the American dye manufacturers, showed them that if they were to retain their Chinese market they must prove to the Chinese their stability by proving the existence of permanent equipment and their general soundness.

They had motion pictures made which proved that the American dye industry was more than a hundred years old, that thousands of acres of valuable land had been covered with substantial buildings in the course of its development, that a vast army of employes were supported by the operations of these plants, and that twenty millions of dollars were invested in them. These pictures, which obviously could not have been faked, showed that the American dye business was on a sound basis, financially and in every other respect.

These films were sent to China and there shown to the chief executives of the Chinese buying organizations. The result is that instead of having lost the Chinese dye-business, as at one time seemed inevitable, America is to-day shipping to China more dyes than on the day the Armistice was signed. In this case motion pictures were not only the best but the only possible trade getter.

The motion picture is by far the best instrument for tying local dealers up with national advertisers. Consider any insurance company or the insurance companies as a great group. One may have as many as 25,000 agents handling its policies. It advertises in *The Saturday Evening Post* and *Liberty*. These advertisements naturally cannot carry all the agents' names. It would spoil the advertising copy even to attempt it and no magazine page, anyway, is large enough to thus record the details of a national business. But local agents' names can be used as motion picture "trailers" without the slightest difficulty—names *and addresses in the local town of showing*—and such films shown in theatres throughout the country form an ideal tie-up of the local agent with the company's national advertising. Everyone who sees a picture thus prepared will know just where to get the product in the home town.

SOLVING A POLITICAL PROBLEM

The value of the motion picture as a means of making political announcements has been copiously proved and is being re-proved every day. The good qualities of a cause, a party, a candidate can be put before the public more effectively by means of motion pictures than in any other manner. The right means of announcing political details has been one of the great problems of America. It is harder to do than to tell the happy story of a soap, a perfume or a piece of farm machinery. Such things can be show-cased or otherwise exhibited in fact. But one cannot put President Coolidge, Mayor Walker, or Al Smith under glass for general examination and handling by the individual voter. Most political campaigns last, probably, two months. The candidates visit two or three cities a day if they are husky and can stand that pace. At the very largest political meetings they can be seen possibly by 15,000 people at one time and with the modern appliance of the loud speaker can be heard by perhaps fifty per cent of those who see them. By the means of motion pictures they can be seen by millions, if millions care to look at them, and seen in action. The spoken "title," used adroitly where such pictures of political candidates are utilized, can be heard to perfect advantage, because

crowds need not be so enormous and the candidate's good qualities can be thoroughly impressed upon the voter—impressed as they can be in no other way and, if the campaign is well managed and complete, impressed so that not a single voter who can leave his bed can possibly escape the glad message.

In one large American city not far from New York, an executive officer, who had been mayor previous to the change to a commission form of government, had managed to get in bad because of private—not public—procedure with his constituents. Realizing this, his managers had to devise some way of directing public attention to the real merit of the candidate's official work. As a matter of fact it was necessary that this should be so clearly shown that his private procedures would be for the time forgotten. The voters had to be reminded that as a public official he had given them good government and their full money's worth. It was up to them to decide whether private peccadillos should be permitted to offset this service.

I was called into conference and entrusted with the creation of a motion picture proof campaign which should emphasize the really astonishing good this man had accomplished while in public office. He actually had done wonderful things for the city wherein he lived. The result was a motion picture visualization of a perfected water supply and what it meant; of a newly established public market and what that meant; of a beautiful and well planned public park system and what that meant; of a motorized fire department and what that meant. Care was taken to present facts which any citizen easily could verify by personal investigation and to show the definite reaction of the man's good work upon the lives of the city's population, young and old.

Here was a strange situation. The man once had been sold to that public through the ordinary means whereby, years previously, he had achieved political popularity. Then, as the result of revelations with regard to private matters, he had been thoroughly unsold—literally and completely submerged. Nothing in the world but that motion picture campaign could have saved him, but that resulted in a vote for him of 79,700, while his nearest opponent in the election got 59,000 odd. He was defeated in advance. In retrospect, thanks to the motion pictures, he was triumphantly elected.

Those pictures put business judgment in charge of the voters' minds and showed them that private affairs had no relationship to municipal management. His kind of business municipal administration was exactly what they wanted.

His opponents were not blind to the advantages of advertising, only they were in sad error as to that kind which in the circumstances would be most effective. They ran page after page of advertising for their candidates and abused their opponent in the local newspapers paid for at tremendous rates. He used not a single printed line and in his pictures made not one appeal to voters for their votes. The pictures were put over as a "Know Your City Campaign" and this automatically proved to the voters that most of the things in it worth knowing had been the work of this particular man.

As Sales-Getters

To-day's uses of the motion picture in general merchandising are numerous and far-reaching, although they are very far from having been fully organized. The general public scarcely is aware of them. Nevertheless they are producing sales for many American concerns and some of these, it is far

more than possible, are so satisfied with the existing situation that they hesitate to speak too loudly of the effective medium which they have discovered.

As propaganda for sales-getting, motion pictures cannot lie. It is inevitable that they must be the most honest of advertising. It is equally inevitable that they must be instantly recognized as such.

In the case of all heavy machinery they are, virtually, the *only* advertising which possibly can tell the story. The salesman of printing presses, road-making devices, weaving looms, metal-working machinery, rod-working machinery, furniture, the larger agricultural implements and ten thousand other things cannot possibly take his samples with him in their actual form, but he can easily take them in the form of motion pictures. A sixteen-ton roller in a roll of film weighs no more than a film of similar length to be carried by a salesman of my lady's lace underwear and takes no more space in the salesman's traveling bag. A salesman in a flivver with a brief case and a portable projector, satchel-size, as his only baggage, can go to the most remote farm in the United States and show its owner the largest, heaviest, most cumbersome and efficient threshing, harvesting, cultivating machinery that ever has been devised by the ingenious mind of man—show it to him in actual operation. In four or five minutes he can with pictures tell him more about his line than the most expert conversational salesman in the world's history could tell him in ten months of talk with pauses for sleep and meals only.

What Motion Pictures Have Done for "Safety First"

By A. J. Van Brunt [1]

THE words "safety first" are a sign post pointing out a path, and at the end of that path, when the millennium arrives, no accident will be caused by lack of thought, hurry, selfishness or penuriousness, and then no accident will occur. I answer the question that is given to me as the title upon which to write by replying, *more than any other one type of effort.*

It is a fact that conviction is carried more readily to the unthinking mind by the spoken word, and to the better trained and more analytical mind by the printed word. It is also a fact that pictures of any kind, because of the lack of necessity for concentrated mental effort, appeal more strongly to a greater number of minds than either the spoken or written word.

In the motion pictures are combined the picture and the printed word, which latter, because of its brevity, closely approximates a slogan or catch phrase, is easily understood and apt to be remembered.

There can be no question but that the success of the tabloid newspaper is attributable to the fact that a very large percentage of its news is placed before see-ers, not readers. There is little reading matter in that type of publication, and that little of the simplest kind.

The average intellect is far below par, much further than is generally supposed; the picture makes a greater appeal to the average intellect and a more lasting impression on the average memory than any one other method of selling the thought.

[1] Director of Safety Education, Public Service Corporation of New Jersey.

Comparatively few people think things out for themselves; they prefer to be told or shown, and they better enjoy the showing by pictures than the telling by words either printed or spoken.

The popularity of the motion picture, the financial success of that industry and of the daily paper that carries many pictures and only a few printed words in large type, clearly demonstrate that the motion picture with its terse and infrequent titles, the major part of the story being carried by pictures, does appeal more strongly to the majority of people. And it is the majority of people who must be reached and taught in this now necessary type of educational effort.

The safety educational motion picture showing the common type of accidents has a better and more lasting effect than the distribution of much printed matter or long, frequent lectures.

A picture 2000 feet long, consuming one-half hour in the projection, is the most desirable length, and the picture in addition to depicting accidents, their causes and inevitable, deplorable results, will best maintain the interest of the audience if there is incorporated in it a story, not necessarily a love story, but some story that will maintain the interest until the end of the showing and aid in fixing in memory the lesson.

These conclusions have also been arrived at by the school educational authorities of numerous municipalities in the schools of which have been installed motion picture projection machines and many of the subjects now taught in schools are being taught suc-

cessfully by many pictures and a few spoken or printed words.

Motion pictures have done much, done most, for "Safety First" and doubtless will be more generally used in all educational efforts in the future than in the past, because the fact is being recognized that the picture appeals most strongly and teaches most thoroughly.

Reducing Film Fires

By Thomas McIlvaine, Jr.,
The National Board of Fire Underwriters

IN a surprising number of instances new products and processes result in new fire hazards to worry underwriters, and the motion picture has been no exception to this general rule.

When Thomas A. Edison began to experiment with action photography, even he, probably, had no thought of the inherent danger of the material which eventually was used as a backing for the photographic emulsion, the entertainment feature of the product no doubt being uppermost in his mind.

However, the fire hazards of nitrocellulose film soon were recognized by most of the larger cities, which took steps to protect their residents' lives and property by enacting restrictive ordinances. Film exchanges, for example, are usually required nowadays to provide vented storage vaults, to equip them with sprinklers and self-closing fire doors, and to institute other safeguards. Unfortunately, the letter of the law is not always enforced. The Greater New York statute holds that not more than 5000 feet, or five reels, of inflammable film may be kept on hand outside of approved storage vaults, although in many offices this provision is more honored in the breach than in the observance, despite the activities of fire department inspectors.

There is in use, of course, a certain amount of "safety" stock that is no more inflammable than paper, according to the Underwriters' laboratories, but the great bulk of the film consumed is of the highly inflammable nitrate variety. It is estimated, for instance, that in the United States alone about 1,300,000,000 feet of film are annually ground through motion picture cameras and printing machines, and of this huge total about ninety-eight per cent, plus, is of the inflammable variety. Four years ago some 600,000,000 feet of film were consumed, which gives an idea of the growth in the hazard.

Explosive Film Gases

The inflammable stock decomposes at ordinary temperatures and its gases are highly explosive. It is more popular commercially than the slow-burning kind, because it is about two cents a foot cheaper and it also has a longer life. The nitrate film burns fiercely since it furnishes its own oxygen: when in a roll it will even burn under water.

In the natural course of their business, the exchanges store and handle hundreds, even thousands, of reels of inflammable film, and, as might be expected, these establishments have been the scene of the most serious fires in this class, some of which will be described briefly, since they indicate the chief points of danger and also illustrate the destructive power of film explosions and fires.

The records show that blazes have originated in various ways: sometimes friction occurs in winding; occasionally a hot steampipe causes ignition; often the careless smoker is to blame. This dangerous member of the community is supposed to have been responsible for a fire in a Pittsburgh exchange a few years ago that caused ten people to lose their lives and inflicted injuries upon twenty others.

The fire extended into an unsprinklered vault where the film burned or decomposed and gave off dense gases which exploded with terrific force, blowing out the back wall of the first three floors of the building, despite the fact that it was of concrete and brick and was eight inches thick.

National Board engineers who inspected the blaze following the fire reported that practically all recognized safeguards that should be observed in connection with the storage and handling of films had been utterly disregarded. Vaults with double doors had been provided, but the portals were left open and there was no extinguishing equipment on hand. The important requirement of vents for carrying off the dangerous gases of decomposition was complied with in only a nominal way, some of the vaults being ventilated directly into the building and others into shafts that were closed at the roof. Furthermore, large quantities of film were permitted to accumulate outside of the vaults. On one floor employes slept and cooked in the same room where uncovered reels were stored. There were unprotected steam radiators throughout the building and seldom were idle films placed in metal containers as they should be. No fire escapes were provided and the stairs were uninclosed. These open stairways, naturally, permitted the extremely rapid circulation of the film gases to all parts of the building.

FATALITIES

While most of the floors were devoted to the storage of film, the sixth was occupied by a manufacturer of women's clothing, and when the fire occurred many of his female employes were either killed or seriously injured because their escape was cut off by the mass of flame sweeping up the stairs. The explosion of the gases traveling up this avenue ignited films upon several floors.

Film blazes usually flash so rapidly, even when there are no explosions, that employes handling reels have little opportunity to escape harm. Consequently loss of life and injuries almost always mark such occurrences.

At Bayonne, New Jersey, a few years ago a fire of terrifying intensity took place in a building occupied by a concern which reclaimed the silver salts from reels of scrapped film by steeping them in a solution of hot caustic soda. In this instance, too, accumulated gases were ignited and blew off the roof of the structure which was two stories in height. About twenty tons of film were incinerated, although the stock in the vats escaped destruction.

A striking feature of this fire was the vivid, radiated heat which was felt for a distance of about 200 feet. Telegraph wires across the street from the structure were fused and damage was done to nearby properties. Three persons were killed and six were badly injured, owing to the rapid spread of the flames and their great intensity. The radiated heat blistered through the clothing of persons who were unfortunate enough to be in the path of the heat waves, and in several instances when the victims removed their shoes and stockings, which had not been even scorched, they pulled away the burned skin underneath.

There were numerous unguarded steam pipes in this plant, and the dangerous drying arrangement, as well as the use of metal bars and pitchforks on concrete floors, made fire an ever-present probability.

Last year, a New Jersey laboratory of so-called "fireproof" construction, with sprinklers, fire doors, and gypsum block partitions separating the different rooms, was the scene of a serious

blaze. Day and night forces were maintained and the fire started soon after four A. M., probably from the contact of film with a naked electric light bulb in the joining and inspection room, since the table lamps and portable lights in that section were used without protective guards. The girl handling the film which caught fire suffered painful burns, but all employes escaped from the structure.

In the basement of this plant there was a room approximately 30 x 50 feet, which had been converted into a temporary storage place for the entire amount of film normally kept in two vaults opening into this space. The vaults were undergoing repairs, however, and the reels had been piled in cans in several places in this basement area. It is believed that in the joining room there was an excessive amount of stock on hand, since the heat generated was sufficient to open thirty sprinkler heads. This prevented localization of the fire, and in fact most of the film was beneath tables where it could not be reached by the water from the sprinklers. At other points the sprinkler heads were obstructed by partitions to such an extent that little water reached the burning film. Eventually the gases of decomposition exploded with a terrific detonation and blew out wired glass windows in the basement besides toppling one wall of the building. The upheaval was sufficiently radical to move all the foundation walls several inches!

An inspection disclosed the fact that the sprinkler system in the building was inadequate as to the number of heads, and the pressure and quantity of water necessary to extinguish a general fire, or even to cool the atmosphere to a point low enough to prevent decomposition.

Another New Jersey plant, one of inferior construction, caught fire about eight o'clock on a morning a little more than a year ago. Waves of flame surged out of the building and burned people 200 feet or more from the structure. An automobile parked half a block away was set on fire and its driver was severely burned about the face and hands. Half a dozen telephone poles in the vicinity were also ignited, and their wires were fused.

It is not feasible, of course, to give a complete list of fires in film exchanges, laboratories and similar establishments, but the cases cited will serve to illustrate the definite hazard that is involved by this branch of the amusement profession.

SAFETY MEASURES

Fortunately the motion picture industry itself fully realizes the possibilities of destruction presented by the product it handles and of its own volition has taken practical steps to improve conditions. The Motion Picture Producers and Distributors of America, the organization directed by Will Hays, has been notably active in recent years in bringing about the institution of structural safeguards and better practices in film exchanges. Maintenance also is extremely important and should be given its due consideration.

Some years ago the National Board of Fire Underwriters drew up a suggested ordinance covering the storage and handling of nitrocellulose motion picture film, the regulations being formulated in the light of experiments made by the Underwriters' laboratories and investigations of actual fires.

As far as motion picture theatres are concerned, most cities require the use of an approved metal booth, or other prescribed structure, as an inclosure for reels and operating machines and they are equipped with automatic fire doors and shutters which operate upon

the functioning of a fusible link, thus localizing any blazes that occur.

The following is a brief summary of the main precautions to be observed in the avoidance of film fires:

TO AVOID FILM FIRES

(1) Have storage vaults properly constructed and amply sprinkled in accordance with the National Board's suggested regulations; exchange offices should also be sprinkled.

(2) Provide vaults with vents leading to the outer air; do not have vaults larger than experts consider safe.

(3) Install self-closing doors on vaults and keep them closed.

(4) Have all electric wiring in metal conduits: for incandescent lights in vaults, or those used for examining purposes, use vapor-proof globes; (no extensions or alterations should be made without first consulting the local electrical bureau, and no unenclosed knife-switches, or other arcing or spark-producing devices should be located in film storage or examining rooms.)

(5) Prohibit smoking at all times.

(6) Maintain tidy premises, free from accumulations of film, packing materials and rubbish; good housekeeping is vital.

(7) Keep all reels in cans or shipping cases when not being examined or screened.

(8) See that reels are kept away from steam pipes and radiators, and provide latter with wire guards.

(9) Patching cements are flammable —handle them carefully, and keep containers closed when not in use; store reserve supplies in a safe place.

(10) Provide approved receptacles with self-closing covers for scrap film and litter; they should be emptied twice daily. Have a daily inspection made by a trusted employe.

(11) Keep supplies of posters and wrapping paper in a separate room cut off from the rest of the establishment.

Our Foreign Trade in Motion Pictures

By C. J. North
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THE most important thing to do in any consideration of our foreign trade in motion pictures is not to make an overstatement of the case. During the past year the press, and a number of our leading publications as well, have called attention in brazen accents to the manner in which the American "movie" dominates the film world. While the underlying truth of this statement cannot be questioned, the trombone-like quality of these utterances has only served to rouse antagonism in high quarters in a number of foreign countries and has led to agitation for legislation against American films. The causes, methods, and possible effects of this are, I believe, being discussed in another place in this volume. I merely mention it here as being caused in part at least by the flaunting in boastful terms of our film supremacy before people who would be none too well disposed towards the character of our movies even though we never said a word on the subject.

Another reason—and a stronger one,—for proceeding with caution is the lack of any statistics which will give more than a clue to the actual revenues derived by our motion picture distributors from their foreign showings. This situation I hasten to add is not the result of any lack of efficiency or zeal on the part of the Department of Commerce in collecting and disseminating such statistics as it is possible to get. The difficulty lies in the fact that the motion picture, unlike any other export commodity, is not sold to an individual customer at a definite selling price known at the time the actual shipment is made. Instead, prints of those motion pictures which are to be exported are sent to the branch offices or agents of the distributing companies in various foreign countries, where they are rented to the theatres for showing. The amount of such rental varies widely with the size and location of the theatre in question, as well as with the character of the picture itself, the consequence being that a film distributor cannot possibly know at the time he sends his picture to a foreign market the amount of money which that picture will earn for him in that market. In order to satisfy regulations he puts down on his shipper's export declaration—this being the document on which Department of Commerce statistics are based—a nominal value which covers merely the cost of the amount of film in his picture. To illustrate, the average feature film of 6000 feet in length is valued at about $240, this being the selling price of film at four cents a foot, even though the distributor may find out a year or two years later that the royalty value of the film—meaning the amount of money it has earned for him from its showings in the foreign market—may be as high as $250,000.

The only thing to do, therefore, in any statistical analysis of our film trade overseas is to fall back on quantity instead of value. For while statistics showing the number of feet of motion pictures sent to each foreign country do not help much in showing just how valuable that country is as a motion picture market, it does give a pretty fair indication of the relative impor-

tance of that market to us in comparison with other markets, and furthermore supplies an index of expansion or retrogression in accordance with whether the quantity of films shipped to that market over a term of years has increased or decreased. Let us proceed along this line then.

General Statistics

First, an average of about seventy five per cent of the motion pictures shown day in and day out the world over are of American origin. What the gross revenues to the industry are from such showings it is difficult to estimate, but for the year 1925 competent authorities have placed them at over $50,000,000. However, in the absence of direct evidence any estimate should be accepted with caution. What is of greater importance is that about thirty per cent of the gross revenues to motion picture companies from all sources is obtained from their overseas trade, which is a far greater average than for almost any other American product entering into foreign trade. The vital necessity to the motion picture industry of maintaining this source of revenue unimpaired can easily be realized.

So far as quantity figures go, for the year 1925 over 235,000,000 feet of finished motion pictures were sent abroad, and for 1926 up to July 1 the figures stand at about 107,000,000 feet, indicating that the quantity of films exported for this year will probably be somewhat less than for last year. However this may be, the fact remains that the general expansion of our foreign trade in motion pictures has been tremendous. Consider that in 1913—the last prewar year—our total exports of this product stood at about 32,000,000 feet. Ten years later this had expanded to about 146,000,000 feet, for 1924 to just over 178,000,000 feet, and for 1925 to the totals just given above.

Europe has always been our best customer for motion pictures and will probably hold this position for some time to come. Thus in 1913 she took about 17,000,000 feet or a little over fifty per cent of our total exports for that year, which figure was increased to nearly 35,000,000 feet in 1923, 60,000,000 feet in 1924, and 86,000,000 feet in 1925. However, both Latin-America and the Far East have shown a much more phenomenal growth proportionately than Europe, when it is noted that exports of films to the former rose from 1,500,000 feet in 1913 to over 63,000,000 feet in 1925, and the latter from about 4,500,000 feet for 1913—nearly all of which went to Australia and New Zealand—to nearly 54,000,000 feet in 1925, these figures representing gains of 15,000,000 and 10,000,000 feet respectively over the previous year. It may be added that Africa, which was virtually non-existent as a motion picture market before the war, has since become a good customer. Her takings in 1925 centered chiefly in the Union of South Africa and Egypt, reaching something over 5,000,000 feet.

An interesting development of the last six months—January to June, 1926—is that American exports of films to Latin-America have outshipped our film exports to Europe. Of the 107,000,000 feet previously mentioned, over 40,000,000 are credited to the Latin-American countries as against about 35,000,000 to the countries of Europe. However, judged on the basis of revenue, Europe still leads by a wide margin, the most careful estimate placing the percentage ratio of these at about sixty-five per cent from Europe, fifteen per cent from Latin-America, twelve per cent from the Far East, and the rest from Africa and Canada.

Let us now take a brief survey of our individual markets.

EUROPEAN MARKETS

United Kingdom.—The United Kingdom is by all odds our most important foreign market. In 1913, out of 17,000,000 feet of films imported by Europe from us, all but about 300,000 feet went to the United Kingdom. Since that time this proportion has considerably decreased, but even in 1925, 36,000,000 feet or nearly fifty per cent of our exports of films to Europe went to the United Kingdom. About ninety-five per cent of the films shown in the 4000 theatres of England, Scotland, Ireland and Wales comes from America, a further interesting side-light being that German films also have greater showings than the local product. American distributors get at least thirty-five per cent of their revenues from the entire foreign field by way of the United Kingdom.

The tremendous preponderance of American films shown in the United Kingdom has brought about considerable agitation for the cutting down by legislative decree of the number of American films which can be shown and a requirement for the production and exhibition of a larger number of British pictures. The reason behind this agitation is that Great Britain feels that through the medium of the screen American ideas and ideals are being unconsciously disseminated to such an extent that British prestige is being undermined, not only within her own borders but particularly in her overseas dominions. Likewise, as the film is an active salesman for many lines of goods, the United States is gaining trade at the expense of Great Britain. It is really a political and social, as well as an economic, problem with Great Britain and as such it will be taken up at the Imperial Conference, which will have been concluded by the time this article appears. It seems almost inevitable that some sort of legislation as mentioned above will be passed sooner or later.

France.—In terms of quantity France is our second market in Europe and our fifth for the whole world. Starting with about 275,000 feet in 1913, France took from us over 4,000,000 feet ten years later, doubled it in 1924 and for 1925 reached a total of over 14,000,000 feet. However, France is not a very good market from the point of view of revenue, royalties amounting to less than three per cent. About seventy per cent of all the films shown are American, the rest being chiefly local films produced by Pathé, Gaumont, Aubert and others. With the memory of the war less vivid, German pictures are appearing in ever increasing number.

There is considerable agitation against American pictures, but it has so far not led to any official plea for legislation. True, a ruling has been put into effect that after January 1, 1928, only non-inflammable films can be shown, but this—even if it is actually enforced, which seems doubtful—will only mean that American prints for the French market will have to be printed on non-inflammable film stock.

Germany.—Germany presents somewhat the reverse of France in the sense that, although her importation of films by quantity is considerably less than France, the revenues secured from Germany are considerably larger. In 1925 exports of American motion pictures to Germany amounted to about 6,500,000 feet as against 25,000 feet in 1913. Of actual pictures presented to the German Board of Censorship in 1925, 268 were German and 218 American, with 114 from other countries. However, as regards actual screen showings, American pictures

were in a slight majority—possibly sixty per cent American as against forty per cent others—revenues from which amounted probably to nearly ten per cent of the total revenues from the foreign field.

Germany produces more films than any other country outside of the United States. Her output last year amounted to about 150 feature pictures, a large proportion of these being from the *Universum Film Aktiengesellschaft* (familiarly known as the *Ufa*). In order to protect this production Germany established on January 1, 1925, what is known as a *Kontingent* system, by which for every foreign film admitted for censorship an equivalent film of German origin must be presented. The effects of the German *Kontingent* system illustrate the fallacy of trying to make legislative decrees supersede economic laws. The worst result of it has really been the fact that it has been made the subject of imitation in several other European countries.

Italy.—American motion pictures occupy about sixty-five per cent of the total showings in Italy, and from an exportation of a meager 8000 feet of film to that country in 1913, the total has risen to nearly 3,000,000 feet in 1925. The fact that Italy has not more than about 2000 theatres and that in many parts of that country the scale of living is not high, serves to keep the average yearly revenues of American distributors to less than two per cent of the totals from the foreign field.

Before the war Italy was one of the largest producers of motion pictures, but has since fallen away to almost nothing. Attempts are being made to revive this, but in spite of the present nationalistic tendencies of the people in Italy, such efforts are not meeting with much success. The only indication of agitation against American films was the suggestion advanced sometime ago of requiring theatre owners to show only Italian films for one week each month. This plan came to nothing, however.

Spain and *Portugal.*—The Spanish people are enthusiastic followers of American pictures. About ninety per cent of the films shown in Spain are from America, our total exportation to that country in 1925 being a little over 4,000,000 feet as against just under 3,000,000 feet in 1924. Revenues from this market reckoned on a percentage basis are about the same as from Italy.

American "movies" have about the same hold in Portugal as in Spain, but due to the small size of the country royalties from this territory are comparatively small. Our total exportation of films to Portugal for 1925 was less than half a million feet.

Holland and *Belgium.*—Both of these countries show American films in a proportion reckoned to be anywhere from eighty to ninety per cent of the total. Exports of films to Holland and Belgium are about equal, amounting in 1925 to about 2,000,000 feet to each. The revenues from the two territories are likewise nearly equal—perhaps a little larger in the case of Belgium—reaching about three per cent for both. Outside of American films, those from Germany command the most attention. So far, there have been few signs of any agitation against American films.

The Scandinavian Countries.—(Denmark, Norway, Sweden, Finland) These, taken together, are among our best customers in Europe and supply about six per cent of our total revenues from foreign film showings. Of the four countries Sweden imports the largest amount of American film with about four and one-half million feet in 1925, Denmark standing next with about 2,000,000 feet, Finland third

with approximately 800,000 feet, and Norway last with a slightly smaller amount. A good index of the relative proportion of American pictures shown is illustrated by Denmark where last year, out of 500 feature pictures shown, 450 were American, and by Finland which for the same period exhibited 300 American pictures as against thirty German and twenty Swedish and Danish.

All four of these countries produce films—particularly Sweden—but their production is relatively small. Recently a sum of money was voted by the Swedish Parliament for investigation into Swedish film conditions—particularly as affected by the domination of American pictures. This investigation will not be completed until the spring of 1927 and whether it will lead to legislative action it is impossible to say.

The Baltic Countries.—(Lithuania, Latvia, Esthonia, Poland) These are all small markets in themselves, but as a whole they supply perhaps one and a half per cent of revenue to the American film industry. Poland with half a million feet for 1925 is the best of these. American pictures occupy better than fifty per cent of the showings in all these countries with German pictures a strong second.

Austria, Czechoslovakia, Hungary.—These countries would be better markets if economic conditions were not so bad. As it is, they supply less than three per cent revenues between them. American pictures occupy seventy per cent of the screen time in Austria and Hungary, while the Czechoslovakian censorship board reports that out of 1300 pictures (both features and short subjects) offered for censorship in 1925, 720 were American as against 215 French, 203 German, 180 Czechoslovakian, and 145 others. Exports of films to Austria reached about 1,500,000 feet in 1925, less than a million to each of the others.

These three Central European countries are all striving to produce films of their own. Austria chiefly through the Sascha Film Company of Vienna has made the greatest headway and enjoys a fair distribution of its films throughout Europe. Ostensibly to further these producing schemes all these territories have imposed *Kontingents* in one form or another. That in Austria, effective September 1, provides for the production of one Austrian film for every twenty foreign films imported. Further light on the causes and effects of these *Kontingents* will be found elsewhere.

The Balkan States.—(Jugo-Slavia, Bulgaria, Roumania, Greece, Turkey) These territories all told provide possibly one and a half per cent revenues on American motion picture showings. Greece is the best market, but all the countries together imported less than a million feet of American pictures in 1925. The American "movie" dominates in all these countries, but lack of theatres and the low scale of living in these countries keeps royalties to a minimum.

While there is no particular agitation against American films, much money is lost to the industry each year through the illegal exhibition of stolen films. This condition, which applies by the way in less degree to such countries as Poland and the other Baltic states, can only be remedied by the establishment of satisfactory copyright relations with them, under which film pirates can be prosecuted.

LATIN-AMERICAN MARKETS

Argentina.—The Argentine Republic is not only our largest Latin-American market in quantity of film imported, but is our fourth largest market in the world. A good idea of its rapid growth may be best obtained when it is stated that, whereas in 1913 we sent about

275,000 feet of films to Argentina, in 1925 this rose to over 20,500,000 feet. In spite of this the revenues secured from motion picture showings amount only to about five per cent of our grand total, the reason being that in general rentals in Latin-America are considerably lower than in many parts of Europe. About ninety per cent of the films shown in Argentina come from the United States. A few films of local production are shown, her producing capacity last year being about twenty feature pictures of limited importance as a competitive factor.

Brazil.—The 10,700,000 feet of films imported from us by Brazil in 1925 as against 200,000 feet in 1913 gives her the position as our sixth largest quantity market. Revenues from Brazil amount to about three per cent of our total and nearly all the pictures shown are from the United States. Like the Argentine Republic, Brazil produces a few pictures for local consumption.

Chile.—Last year the United States exported about 4,500,000 feet of films to Chile, which brought in about a one per cent revenue return on eighty-five per cent of the total showings of pictures in that country.

Other South American Countries.—(Venezuela, Colombia, The Guianas, Peru, Bolivia, Ecuador, Paraguay, Uruguay) These countries all show American pictures virtually to the exclusion of those from other countries, but taken together do not provide revenues of more than two per cent of the grand total. All told, we sent about 5,000,000 feet of films to all these countries in 1925, but low rentals, the result of low purchasing power, account for the comparatively small sums from these territories.

Mexico

Mexico as our eighth largest quantity market received over 7,500,000 feet of films from this country in 1925 and yielded up about two per cent in revenue. Over ninety per cent of all the films shown in Mexico are of American origin, as is natural in a country so close to us.

Cuba

Cuba with 6,000,000 feet of films from the United States in 1925, as against 12,000 feet in 1913, furnishes about one per cent revenue from our film showings. It is a market capable of greater expansion with the building of more adequate theatres, though rentals are bound to remain fairly low. Over ninety per cent American pictures are shown.

Central America

Guatemala, Honduras, Br. Honduras, Salvador, Costa Rica, Nicaragua, Panama.—We exported about 3,000,000 feet of films to these territories in 1925 and got about a one-half of one per cent return. Although eighty to ninety per cent of the pictures exhibited are American, the theatres are few, the purchasing power of the inhabitants is small and in consequence the rentals are very low.

West Indies

Haiti, Santo Domingo, Jamaica, British, French and *Dutch West Indies.*—This market is surprisingly good in consideration of the comparatively small percentage of the population which attends the "movies," and the few up-to-date theatres. Possibly one-half of one per cent of our world revenue comes from here. Of course, nearly all the pictures shown are from the United States, exports of these to the West Indies amounting in 1925 to over 5,000,000 feet.

Far Eastern Market

Australia and *New Zealand.*—These two territories are responsible for at

least half the revenues secured from the Far East by the American motion picture industry. Those from Australia are of course far larger with probably six per cent, while two per cent comes from New Zealand. As a quantity market Australia has never been lower than third on our export list and in 1925 she stood second with film takings of about 23,000,000 feet as against 2,000,000 feet in 1913. New Zealand raised her total during this same period to over 5,000,000 feet from 275,000 feet.

About ninety-five per cent of the pictures shown in both Australia and New Zealand come from the United States and in the former country, at least, considerable agitation has been raised over the fact that so few British Empire pictures are exhibited. Last year a ruling was passed by the Parliament of New South Wales that every motion picture program in that state must contain at least 1000 feet of pictures of British origin. This situation as indicated above will be discussed at the Imperial Conference with results impossible to foretell at present. It may be added that Australia is producing a few pictures each year and with greater capital and talent stands a good chance of bringing out a considerable number of pictures which should find favor in world markets.

Japan.—Japan is our second largest Far Eastern market. In 1925 we sent over 9,000,000 feet of films to Japan, which is over 8,500,000 feet more than in 1913 and revenues from these reached over three per cent of the total. Curiously enough Japan is the only important export market where American pictures are not in the majority. As a matter of fact, over seventy per cent of the films shown on Japanese screens are produced by Japanese, according to plot themes, however, and delineated in such a way that they would not be well understood outside of Japan. The remaining thirty per cent nearly all come from America, which places Japan as our seventh largest quantity market.

Dutch East Indies.—This territory was not on our movie map at all in 1913, yet in 1925 our exports of motion picture films to the Dutch East Indies were over 4,000,000 feet. Over seventy-five per cent of the pictures shown are from the United States and it contributes revenues of about one and a half per cent of our total from the foreign field.

China.—China would be a much larger motion picture market if the scale of living of its tremendous population were higher, if transportation conditions were better, and if political conditions were more stable. As it is, we sent nearly 3,000,000 feet of film to that country in 1925, but it cannot be said that this footage was shown beyond the treaty ports and occasionally in a few of the more accessible cities of the interior. Likewise, China is going in for the production of her own pictures and as in the case of Japan her people vastly prefer Chinese pictures to those from other sources. The one per cent revenue derived from China should be increased in the future, but when the motion picture spreads in China it will probably be the Chinese-produced picture which will do the bulk of the business.

India.—India is another country where poverty greatly hampers the spread of American motion pictures. These are in a large majority and India took about 3,000,000 feet of American film in 1925, but the revenues from India are certainly not much more than one-half of one per cent. India, too, is going in for film production in a cautious way and signs are not lacking that the people of India prefer to patronize their own pictures if these are at all capably produced.

Straits Settlements.—This territory stands on our books as the tenth largest quantity market with takings of nearly 6,000,000 feet of films in 1925 as against 4900 feet in 1913. However, much of this is due to the fact that Singapore is a large trans-shipment point, for revenues on motion pictures in the Straits Settlements are certainly not more than one-fourth of one per cent of the grand total. Most of the pictures shown are American.

Siam, Indo-China, Philippines, South Sea Islands, etc. — The remainder of the Far East contributes perhaps one per cent to our revenues, chiefly from the Philippines. American pictures are very popular in all these places, and the profit from their showings is limited only by the economic factor of purchasing power.

Other Foreign Markets

British South Africa.—Relatively speaking, British South Africa is an excellent market. In 1913 we sent less than 10,000 feet of films to this territory; in 1925 this had grown to nearly 4,000,000 feet, which supplies about one and three-fourths per cent of our entire film revenues from foreign sources. African film showings are practically centred in one corporation —The African Film Trust Limited— which controls over 300 theatres in a total of less than 400. This firm, however, patronizes American films extensively.

Other Africa.—While film revenues from the rest of Africa are comparatively negligible, amounting to less than one-half of one per cent, such pictures as are shown come chiefly from the United States. Egypt is an expanding market with Morocco next.

Near East.—Palestine, Syria, Arabia and Persia have all seen American pictures probably more than those from any other country. However, the business is necessarily very small and is rendered doubly precarious from a financial viewpoint on account of film piracy, reference to which has been made earlier in this article.

Canada.—If Canada were considered as part of the foreign field it would rank third, close behind Australia. As far back as 1913 nearly 10,000,000 feet of American films were exported to Canada—three times as much as to Latin-America and the Far East combined—and this had increased by 1925 to nearly 23,000,000 feet, yielding about five per cent revenue. However, conditions in Canada are so like those in the United States and access is so easy that it is regarded by the industry as part of the domestic market.

U. S. Imports of Motion Pictures

Just a word in conclusion as to our imports of motion pictures. While these have been far overshadowed by our exports, a few foreign pictures—perhaps a dozen—are shown in the United States each year. In direct contradistinction to our film exports, imports of these were considerably less in 1925 than in 1913. Thus in 1913 we took in nearly 16,000,000 feet of films. Ten years later this had sunk to just over 9,000,000 feet and in 1924 a further drop to under 7,000,000 feet occurred, these figures being just about duplicated in 1925. Figures of about 4,000,000 feet for the first six months of 1926 indicate an upward climb.

With regard to individual countries nearly all our imports of films have come from four countries—England, France, Germany and Italy. Of these, Germany has led in showings with England and France about equal for second place, while Italy, which before the war sent us about as many pictures as Germany, has now fallen far behind.

Foreign countries have made much of the poor showings of their pictures in the United States as evidence that their pictures are discriminated against on the basis of nationality. This is absolutely not true. Any American distributor would be glad to show as many foreign pictures as he could get, provided he could make money on them. Unfortunately, so far the few pictures from overseas which have been exhibited in the United States have with rare exceptions been a financial failure, which incidentally is no criticism of their artistic merit. However, beginning this year there are signs that pictures from England, France and Germany will be seen in increasing numbers on our screens—all of which will be a very good thing as attesting in greater degree to the international character of the film business.

Possibilities of the Cinema in Education

By Ernest L. Crandall
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HAS the motion picture a place in education? Happily that question has now been answered and answered in the affirmative. I by no means wish to imply that the use of motion pictures as a medium of instruction has as yet been generally recognized by educators. That is not the fact. To some extent the motion picture has been adopted as an aid to instruction, though its adaptability is still questioned in some circles. We have yet far to travel in that direction, but before we can even discuss that, there is a distinction to be made, a distinction which is vital; namely, the distinction between the motion picture as an experiential fact and the motion picture as an implement of instruction.

The recognition and general adoption of the motion picture as a teaching tool, which is what many educators have envisaged and are steadily aiming at, is one thing. Quite another thing is the recognition of the motion picture as a force to be dealt with in education, as a factor in life that can no longer be ignored by the educator.

In this latter sense, the educational world might ultimately determine to leave the motion picture where it is, in the theatre, seeking only to improve and regulate it there, and not attempting in any broad and universal sense to utilize it in the formal educational process. Personally, I do not believe that this will be the outcome. However, the distinction we have made is as interesting as it is essential, because it brings us face to face with a reformulation of our inquiry, and a reformulation which should prove illuminating if not conclusive.

Place and Importance in Education

Let us state our question, then, in the alternative form: Is the place of the motion picture in education merely that of a great and practically universal fact or factor in life, which must be reckoned with, controlled, and even studied, as is the case, for instance, with the drama; or is it also an instrumentality through which we can most effectively teach many other things?

The answer is that it is both. That it is the former, the whole educational world has come to recognize, but to recognize only in a vague sort of way. The motion picture is here. It has invaded modern life so completely and so conspicuously that something must be done about it. But what? That represents just about the bewildered state of mind of great masses of the teaching profession on the subject.

On the other hand, there are a definite few, who, recognizing this phase of the motion picture, namely, its importance as an experiential fact in the present and future life of the child, see in it also a teaching tool—the most effective teaching tool ever placed in the hands of the trainer of youth, if properly harnessed to its task.

Let us consider for a moment the first aspect of the matter—the motion picture as an experiential fact in life. From a curious toy or a dubious form of cheap amusement, the cinema has developed into a species of literature.

It may be good literature or bad literature, but literature it certainly is, and a distinct species of literature. It has its psychological basis, its laws of construction, its tricks and devices, its tropes and modes, like any other form of literature. As such, how are we as educators to treat it? Shall we leave it in the state of taboo under which the drama rested for centuries? Shall we merely try to curb, to constrain, to regulate? Shall we have done our full duty by preparing black lists and white lists, and maintaining some sort of official or unofficial, some sort of disguised or undisguised censorship? Or should we accord it a place in our curriculum, not as a mechanical device now, but as a subject of study, teaching our pupils to understand its laws and to evaluate it standards, shaping their judgment and training their taste with regard to its output, just as the colleges and even the secondary schools have at last come to do for the drama, once the most neglected if not the most despised species of literature? I think there can be no doubt of the ultimate attitude of educators on this question, virtually all of whom, as I have implied, have at last been dimly stirred by its insistence. However, I feel that we are at present more distinctly concerned with the other question; namely, is the motion picture in itself an instrumentality through which many things can be taught most effectively?

For me, merely to state this question is to answer it. Asking if the motion picture can be used for teaching is like asking if water is wet, or rather let us say, if water slakes thirst or food satisfies hunger. If it is a form of literature, it is even more certainly a great, universally recognized and universally encountered form of expression. As such, it must take its place somewhere beside the printed page and the spoken word as a means of imparting ideas.

The fact is that the motion picture is teaching all the time. Indeed, we are more or less disturbed, and with good reason, about the things it is teaching and the way it is teaching them. Leaving at one side this disturbing aspect, we have only to reflect for a moment upon the extent to which the screen has extended the mental horizon of great masses of our people, to be convinced of its educational efficacy. I think it cannot be gainsaid that, more than any other agency in modern life, more even than the flood of cheap books, the multiplicity of magazines or the illustrated newspaper, the motion picture has brought to the man in the street a knowledge of the world he lives in, in virtually all of its aspects. Places, names, happenings far from his own habitat, discoveries, inventions, experiments, scientific or industrial, throughout the world, plans, problems and currents of thought in every field of human activity, glimpses of the past and speculations as to the future—all these have come to mean more to the average man, especially the urban dweller, than ever before in the history of mankind, and all because the cinema, in tireless and ingenious hands, is visualizing for him daily the things that men are working at or thinking about everywhere.

FUNDAMENTAL VALUE

We must come a little nearer to the heart of our problem, however. To recognize the screen as a universal teacher might be merely to class it with the newspaper, which, however indispensable in the teaching of current events, is scarcely an ideal medium of universal application in the teaching process. The ideal value of the motion picture lies not so much in the fact that it is a form of expression, as in

the fact that it is a recording instrument. Let us approach the question from a different angle.

In man's intellectual conquest of the world in which he dwells, there are just two instruments of his own invention that have furthered his progress and made possible his achievement. They are the camera of the explorer and the microscope of the scientist. Now the immense teaching value of the motion picture lies primarily in the fact that it is an extension of these two instruments. Indeed, we hear so much of socialization, I think it would be a rather happy phrase to describe the motion picture as a socialization of the camera and the microscope, making available for great masses at once, and virtually in perpetuity, the startling records of these two supersensitive extensions of human vision.

Before the motion picture came, the explorer or the globe trotter who returned from parts unknown had to content himself with publishing an illustrated volume or two, or a lecture tour illustrated with detached and lifeless, though of course often very beautiful views. Equally in those days, the scientist, poring over his microscope, was compelled to make most elaborate drawings and sketches to convey even to his fellow scientists an idea of what went on beneath his eye. To-day the explorer can take all mankind with him on his voyagings and the scientist invites the whole world into his laboratory. Thus the motion picture has a certain inherent power all its own that divests it for all of us of the commonplace and that in turn invests all of us with a sort of superconsciousness, as though we were in very truth gods or supermen. With it we mount up into the air, become companions to the clouds and ride upon the wind; with it we dive down into the water and bring up the secrets of the vasty deep; with it we explore the known and unknown surface of the earth, visiting nor only far lands and strange peoples and bringing back a record of their manners and customs, their modes and standards of life, but penetrating forest and jungle from the frozen fastnesses of the poles to the festooned forests of the equator, spying upon the life habits of bird and beast and reptile; with it we approach the potentate upon his throne, accompany the statesman into his cabinet, invade the legislative halls of states and nations and sit as silent spectators at the very congress of the world; with it we accompany the soldier out upon the field of battle until the "rockets' red glare" and "the bombs bursting in air" are translated from poetic metaphor to grim reality; with it we sit beside the sick bed with the watching physician or follow the surgeon's lancet through nerves and tissues, leaving an imperishable record for the guidance of future skill in difficult operations; with it we analyze the pulsations of the heart and number the life-giving corpuscles as they course through the veins; with it we study the structure and the function of every living thing, and penetrate the mystery even of the cell, that unit of organic life; with it we visualize the action and reaction of molecule and atom and electron, and spy upon the virgin crystal as it rises, like Venus, from its bath in the chemical solution. No doors are closed to it, no secrets hid, no barriers insurmountable. Even the barrier of time recedes before it, so that through it and through it alone, man has been able at least with measurable satisfaction to reconstruct past eras of the world's formation, rehearse the mighty pageantry of history, and forecast vast reaches of the future.

Fundamentally, the value of the

motion picture in education rests, of course, upon a psychological basis. The great bulk of our practical knowledge comes to us through the senses and by far the greater part of this through the sense of vision. It may be possible to reduce these proportions to percentages, as some have sought to do; but it seems to me a futile sort of exercise. It is matter of common observation that our eyes are the most valuable part of our sensory equipment. Now, it may be possible by description, explanation and narration to convey to others a fairly accurate impression of our sense experiences, through the written or spoken word. Obviously, however, this implies a considerable wealth of kindred sense experience on their part. Otherwise they would not be able to receive and interpret our account. If you want to test this, just try to draft a description of a dog that you yourself believe would convey an accurate impression to an adult who had never seen one, and note the difficulties you encounter. Then take some six-year old child by the hand and walk down the street. You will discover that he recognizes every canine he encounters, though they may be of various colors, though some may have short hair and others long, though some may be twice as large as himself and others not much bigger than his pet kitten. The reason is that this is an item of knowledge that he has worked out for himself through the comparison and evaluation of his own immediate sense experiences. Other things being equal, then, that individual will be best informed who has the greatest wealth of well co-ordinated sense experiences.

THE VALUE TO THE CHILD

Now, I think no one will dispute that the motion picture is in many aspects the nearest approach to and the most nearly perfect substitute for immediate observation, so far as the same is dependent upon mere vision. It must be remembered, of course, that looking is not seeing, but that is equally true of actual vision. Certainly the motion picture does bring the world to the child's doorstep as nearly as that is humanly possible to do. What he gets out of that panorama depends upon other factors.

The importance of bringing the world of fact, as far as practicable, within the range of the child's vision rests upon the child's inevitable paucity of sense experiences. Even those children most favorably situated in life will possess meagre experiential background for the appraisal of each new item of observation, as compared with the average adult. This lack is much greater with the great mass of children, a very small percentage of whom have ever traveled at all, or in any way transgressed the bounds of their own immediate environment. In fact, this is a lack so great that I think few educators realize its extent or the vital necessity of counterbalancing it.

We shall understand this problem better if we select some concrete subject of study, such as geography, as an example. Geography is regarded in some systems of education as the very core of instruction. In any conception of education the study of geography is an important and essential phase of the process of instruction. Socially, spiritually and intellectually, man is heir to all the ages. In extracting the values from past centuries, history, of course, plays the principal rôle, but to attempt the study of history without a fundamental knowledge of geography is like sailing a ship on an uncharted ocean. Physically and in the most of his practical relations, civilized man is as dependent as his primitive prototype upon his actual present environ-

ment. Individually and collectively his efforts are still bent chiefly upon supplying the three great primal needs of food, clothing and shelter, the satisfaction of which must be extracted from his environment. The chief difference between primitive and civilized man is that the latter has learned to extend his environment to the limits of the known world. In this process geography has been his chief concern, a knowledge of the sources of supply for the meeting of these three great needs. In this sense geography has created history, and it dominates the life of the present and determines the conditions of the future. For it is primarily in the pursuit of this one primal task of ever growing complexity that man has undertaken explorations, established colonies, founded industries, ordained institutions, organized governments and enacted laws.

Now let us consider for a moment the actual situation of two groups of children studying geography. Let us place one of them in New York, or some other coastwise city, and the other in some inland rural village. I think it will occur at once to all my readers that the latter group will lack a great many sense experiences that are commonplaces with most of us. How many of them, do you think, will ever have beheld a crowded city thoroughfare; a great mercantile establishment where the wealth of a kingdom changes hands every day over the counter; a vast industrial plant with its manifold operations and its army of employes, so characteristic of our modern economic development; or a busy harbor with its forest of masts and funnels and its ocean greyhounds straining at the leash to whisk their 20th century argonauts across the sea in quest of richer argosies than old Homer ever dreamed of.

But this poverty of sense experience will be found scarcely more acute in the rural group than in the urban. Any careful and observant city teacher can cite you numberless examples of city children with no conception of the conditions of life outside the block in which they live. Hundreds and thousands of these urban little ones have never seen the shining plow lay bare the steaming furrow; have never seen the cattle grazing on a thousand hills; have never seen a field of waving grain; have never seen the foaming cataract leaping in dizzy whiteness from towering precipice to fertile valley or the lazy river gnawing its way through the plain and by the process of erosion and deposit building up the very soil on which and from which we live; have never seen that annual miracle of nature, the apple tree bursting into fragrant blossom with each recurring spring; or watched how the sun practices his slow and patient alchemy upon the blossoms from the time the petals fall until the golden fruit hangs luciously ready to drop into the basket. In short, countless numbers of these urban children have absolutely no notion of a thousand and one facts and processes upon which their very existence depends.

Now, without discounting or discarding every other available aid to visualization, if there is any one instrumentality that can so completely supply for these two groups the lack of immediate contact with essential facts and factors in the study of geography, as can the motion picture, I do not know what it is.

A little reflection will show you, also, that there are many other subjects, in some phase of which the motion picture may be made to render invaluable aid in assisting the pupil to correct and complete visualization of that about which he is studying. We have found it of immense help in biology, not only

in the portrayal of unfamiliar life forms, but in the depiction and analysis of life processes. The same thing applies to nature study for younger children. In chemistry, it may be made to replace, to perpetuate or to supplement the laboratory experiment in many cases, while in applied physics there is nothing so effective for the analysis of mechanical processes as a skillful combination of direct photography and animated diagram. In history and in literature, it plays the double rôle of re-enacting actual episodes and of painting an unfamiliar background. A child who has ever seen Julius Cæsar screened will at least know the difference between a toga and an overcoat, possibly noting the advantages and disadvantages of each; while a boy who has seen Doug' Fairbanks in *Robin Hood* has not only had a corking good time, but is really prepared to understand and appreciate Scott's *Ivanhoe* or the mediæval history that he gets in high school.

PROBLEMS INVOLVED

This is only a partial list, sufficient to show that there are few subjects which may not be illuminated by the screen. On the other hand, we must not fall into a not uncommon error of feeling that it can teach everything or that it is a royal road to learning. First of all, neither the teacher nor the text-book can ever be replaced by the screen. It must always remain an aid to the one and a supplement to the other. Secondly, there are many phases of subjects which can be better illustrated through other media. The motion picture is essentially an expensive article. This is as true of the educational film as of the theatrical film, even though not in the same degree. The making of a good educational film involves the expenditure of a great deal of time, energy and money. It is wasteful to demand them or seek to apply them where simpler devices are equally effective. Take a few simple examples. If I wished to show my class Niagara Falls or the great geysers of Yellowstone Park, I should select a good motion picture. If on the other hand I wanted to show them the capitol at Washington or take them on a visit to Westminster Abbey, I should greatly prefer a series of well made slides. If I wanted to show a boy the working of a linotype machine and could not take him to a printing establishment, I should have recourse to a motion picture, if one could be procured. But if I wanted to show him the invention and evolution of printing as an art, a few well chosen slides or charts would be equally effective.

There are a great many other prob lems, involving a great many other precautions which concern chiefly the professional educator, but space does not permit a discussion of these. Indeed, there are many pedagogical problems connected with the use of this latest teaching device about which none of us are any too clear as yet. We are not agreed as to whether the film should precede the recitation or culminate it. We are not certain whether it should be presented in silence or accompanied by explanation and discussion. We are not agreed as to whether it should be shown in sections or all at once. We are not sure whether its effectiveness is dependent upon the psychological age of the child or not.

One thing is very clear and that is that merely throwing motion pictures at the children is not using them as an educational instrument. Like any other teaching device, they must be fitted into the educational process at precisely that point and in precisely that way which is calculated to render

them most effective as an aid to visualization. These are essentially problems of technique. They will all be solved eventually and, in one form or another, the cinema will ultimately take its place, I believe, among the recognized adjuncts of every well organized teaching establishment.

The Goal of the Motion Picture in Education

By Nathaniel W. Stephenson
Yale University Press

LORD BYRON, paraphrasing one of the ancients, asked the Lord to deliver him from his friends. The believer in motion pictures as educational tools is sometimes tempted to do likewise. When a rash advocate goes so far as to say that eventually motion pictures will do it all, and teachers will disappear—Good Lord, deliver us!

But this absurd extremist is a symptom that needs to be considered. He is the measure of the intemperate claim-everything spirit that has inspired too much of the talking and writing on this important subject. A first step toward a clear understanding of the real value of the motion picture in education might well be the question: "What are its limitations?" But as so many people are at once offended when a new subject is approached that way, let us take the other way round. No one will object if one begins with the question: "What can the motion picture do that nothing else can do?"

It is quite plain that this question has not been asked often enough or searchingly enough. Glib repetition of the mere words counts for nothing. Call that what it is, mere gesture, and forget it. Forget also the claim-everything answers. There is but one way to get at worthwhile answers and that is by taking a given subject, presenting it skillfully both in words and in motion pictures, and then examining carefully the contrasting results.

The specific instance is generally the clearest mode of approaching a problem. In this case the files of the Yale University Press are illuminating. The Press is now producing a series of photoplays based on its publication, *The Chronicles of America*, and designed for use in the schools. As the series is a pioneer venture not yet paralleled by any other, there is nothing invidious in citing it for purposes of illustration. The editors have corresponded with many schools and discussed with a great many teachers the problem of presenting history by means of films. One of these files lies before me as I write.

I select this particular file because the subject with which it deals makes possible a close comparison of literary and pictorial treatment. Too often in trying to get at the distinctive thing in the motion picture we fool ourselves by selecting illustrations that do not permit exact comparison with literary treatments. Either they are frankly diagrammatic—a type of film with a vast deal to say for itself and in which there are great undeveloped possibilities—or they are so definitely novel in subject matter that we attribute unconsciously to their inherent qualities values that will disappear when the novelty disappears. The illustration I am going to take is a 3-reel play presenting for school use the adoption of the Declaration of Independence. Here is a subject that has been presented time and again in literature, therefore it is a useful illustration for the present purpose.

Handicap of Literary Traditions

Two years ago the author of the letters in this file thought that the

historical film in dramatic form was exactly what she was waiting for. A letter full of enthusiam tells how such films will "electrify" her classes. The proposed film upon the Declaration of Independence sketched in outline before it was produced especially inspired her. Two years later another letter was all discouragement. She had tried to use the film and was bewildered. "What good is it to me?" she writes. "After all, have I been mistaken? Is the story of the Declaration just the same thing on the printed page and on the screen?"

The good lady was revealing something about herself and her teaching methods that she never dreamed she was revealing. Let us come back to her in a moment.

But first, a contrast—the reaction to the same film of a very different sort of person. This other happens to be a foreigner, a bright young Italian of good education. Nothing in this, however, except that he sees American history with open eye, with very little knowledge, and with great curiosity. He could not keep from making comments while the film was showing. One or two of these give the clue to the differences from our good lady. The author of the photoplay introduced for strictly historical reasons a social entertainment at Philadelphia while the Declaration was pending. "Why," exclaimed the Italian, "I had no idea they had such good manners in those days." Naïve—but it "rang the bell" on a target that the editors had in view but which the lady had not perceived. And again the Italian exclaimed, "How charmingly 18th century it all is!" And when at another point he glimpsed a rough crowd in the street dramatically contrasted with conservative wealth, his comment was, "So, there was all that difference in classes, was there?" At the close his last word was, "I have a comprehension of the moral and social values in your Revolution that I could not have got from books without immense study."

He has—without dreaming what he was doing—exposed our lady and her teaching methods. Her trouble may be put into one sentence: for all her vague intentions about motion pictures her mind is still uncompromisingly literary.

This particular illustration is of course a highly specialized type of picture. To repeat, there are many other types which by their very nature might force the lady away from her literary tradition and thus fail to expose her. That is why I chose for illustration a play on which the picture, for obvious reasons, held close in its action to prescribed conventional content. In this play the difference between its version of the event and a version that would appear on the printed page is altogether the difference that is enforced willy-nilly by the difference of the character of the two media of expression.

Here lies the real heart of the matter. The trouble with so much of our discussion of motion pictures in education is a failure to allow for the strength, depth and persistence of the literary tradition in all our conceptions of education. Americans have had it for three hundred years; North Europeans, for a thousand. It is so engrained in us that only a few, relatively, to whom for some strange purpose nature has given an intuition of pictures and pictorial values, are even aware of its existence —so close is it to us, like the unconscious limitations which we never admit! So far, only those films that in their very nature drag us away from the literary tradition—like the

diagrammatic, scientific films—have been fully apprehended, and even these when we come to teach them are so often unconsciously dragged back by the teacher into some form of literary tradition. Not until we learn to think in pictures—which our Italian visitor does instinctively—will we get ourselves straight with the subject.

Take our lady of the Declaration. The event to her is irrevocably a narrative of the growth of ideas. That is how American history has always been presented to her, how she—I will not say for how many years—has been presenting it to her classes. Her pupils, so far as they have got anything out of her teaching, have got something relatively abstract, with very slight visual body, with significance that is almost purely mental. She happens to be a good teacher and she has made them understand cause and effect in purely mental terms with good results. But there she has paused.

When she takes up a film she looks instinctively for mental facts—the same mental facts which are necessary to answer the set of relatively abstract questions which she has been teaching her classes to answer, year after year. In a literary presentation those facts with their answers are certain to be present or ought to be. In a pictorial presentation just as certainly they ought *not* to be present and ought to be replaced by a different set of facts. But the lady has not been taught to make this distinction. She is aghast when she finds that the film does not give her the same subject matter for question and answer which the printed page gives. She is not prepared to notice what it is that the film gives which the printed page does not give. Hitherto she has assumed unaware that somehow a film showing history would work a miracle; that the same subject matter which she could present clearly but laboriously from the printed page would somehow flash instantaneously and delightfully from the film to the pupil. No wonder she is puzzled.

It might interest her to know that when the venture to which I refer was first considered, it was strenuously opposed by a number of able historians. Their point was that so much in history never was and never can be seen with the physical eye. No one ever saw the succession of thoughts that passed through George Washington's mind in the six months following June, 1775. No one ever saw—himself not excepted—his old frame of mind break up and dissolve away; a new frame of mind gradually succeed it, and at last take possession of him. Not until all that was over and done, did anything expressive of that great internal drama take on form that could be seen. It is because so much of history was invisible at the time when it occurred and is forever invisible, but none the less through the medium of analytic literature—that marvelous web of mere thoughts—is susceptible of a certain sort of expression, that the historians were afraid of the films. It was only after long argument that they were at last persuaded, and then only because of two promises: first, that the whole subject should be reconceived, that the invisible part should not be stultified by a visualization which could never be true to the mental fact: second, that the aim of visual history should be to lay hold of those things that the literary tradition has neglected because the literary medium is inadequate to their expression and that it should give to these the prominence they deserve.

In the illustrations chosen the item of manners was the real reason for making the choice. How can literary history ever give us a real impression of the actual social envelope of life? If you want to test the matter, give *Henry Esmond* to a class in drawing and tell them to illustrate it without reading any other book; or take it as the basis of a school play and ask the players each one to write out a description of a 17th century rout. There will be nothing of true social flavor, nothing of the atmosphere of a given time or of any particular group of people in the resulting descriptions.

TREND TOWARD SOCIAL HISTORY

You may say that manners are a trifling part of history. There are two sides to that. But the value of the illustration, in any event, is not impaired. It focuses the difference in the two media. It does more. It brings sharply before us the newest tendency in historical study. The main drift to-day is away from political and toward social history. The American Revolution considered first of all as a social fact—not first of all as a political or a philosophical fact—is what we want to have made plain. The moment you ask for a social fact you put literary history at a disadvantage because you ask for exact impressions of the semblance of things; also because you ask for certain forms of the movement of life that are too elemental, too varied and inconsequential, at times too dense and confused, for the high sophistication of the art of bodiless words.

No phase of American history has been more ruthlessly neglected on its social side than our Revolution. Ask the average intelligent young business man how the power of the Crown was overthrown in America and how the people came into their own. I have been making a test lately on just this question. I find that one after another of these bright young business men frankly confesses that the schools have given them no impression definite enough to stand by them, and also that they are all immensely interested in knowing just what happened, knowing it in the vivid, social way in which they know contemporary events. When it is hinted to them that "Sons of Liberty" were societies semi-secret, that methods not wholly unlike those of the Ku-Klux Klan were not totally unknown in the 18th century, they bat their eyes with delighted curiosity.

It is through these two things—the semblance of life as an indication of its meaning and the large movements of life as evidence of the convictions men act upon—that the motion picture may become not the rival, but the yokefellow of literary history, each doing its share in a task that neither can do completely alone.

Perhaps the question is raised, "Why dwell so much on a single phase of the subject?" Because the specific case is the real test, because, until we admit that we are trying to conquer a new medium and that we have not as yet fully realized all the implications of this fact, we shall not get far toward understanding our real problem.

And that problem is simply, "How are we going to acquire the habit of mind that will enable us to think in the medium of pictures from the ground up?" Until we do, we shall always more or less be pulling and hauling, trying to fit the new devices into teaching traditions developed through the use of a deeply dissimilar medium. The real problem of the hour is a problem of teachers far more than of films.

NEED FOR FILM TECHNIQUE

As to films, there are certain confusions that need to be cleared up before a technique of film instruction can be worked out. First of all, a distinction must be insisted upon. As a rule we do not distinguish sharply enough between dramatic films and non-dramatic films. Hitherto, successful educational films have, as a rule, based themselves on the lecture, or the old-fashioned recitation. They may have put on a veneer of apparent drama. In point of fact they were generally picture lectures—that is, their consecutiveness, their unity, is in a series of propositions, not in emotional sequence. The results are often excellent. Again, these subjects may be divided in two—the films that are frankly designed to fit into a talk and the films that are themselves virtually lectures with the teacher as a mere adjunct. Both forms are still in their infancy and neither, where it is applicable, can be praised too highly.

However, each has a great danger and this danger illustrates again the need of a film technique in teaching that will really make a step forward in methods. Whenever a new device is introduced into teaching, the mechanically-minded people get another brief opportunity. They seize upon the new thing, apply their old worn-out methods to the use of it, then complacently call upon us to admire their modernism. Alas! No people at the present hour are such real enemies of the motion picture in education—of the thing that ought to be the battle flag of wholly new methods—as these conventional minds that want to use this novelty as a cloak for their own lack of invention.

Not long ago I had the pleasure of witnessing a demonstration class conducted by a teacher who is supposed to be very clever in the use of films. She was using a lecture film very good of its kind. Her methods were exactly the most old fashioned cram-book methods. At the end of the hour the class had been thoroughly dragooned upon the facts of the film. The teacher had used the whole bag of tricks by means of which anyone who knows how to use them can suggest a class into giving back the response decided upon in advance. This is all very well in its way, but what is the difference between a picture cram-book and a printed cram-book? What difference between the old, old methods with old instruments and with new?

EXPERIMENTS

If the new instrument is to prove a blessing and not something very different, it must be handled in a spirit peculiar to itself. This the really thoughtful teachers are trying to do. Those who have rebelled against cram-book methods with the printed page will not fall back into cram-book methods with pictures.

The need to be progressive is most conspicuous in connection with the dramatic films. Here the motion picture must go to the limit or it will fail. It must take up and focus all those new demands that have floated in the mental atmosphere these recent years under a variety of names, but which are all kept going by the same central idea—the belief that the free play of reaction in the child itself may be used as the basis of instruction. Obviously, this is the antithesis of the cram-book method.

The lecture film may be spoiled by the mechanical teacher and perverted without the tragedy being apparent to all observers. I like to

believe that the dramatic film cannot be spoiled without detection. But the true use of it is not yet worked out. A number of schools are experimenting. The Lincoln School in New York has done excellent work in this field—so excellent, indeed, that the Department of Education at Yale University has robbed the Lincoln School of Dr. Daniel C. Knowlton and set him to work experimenting with the dramatic film as an educational device. Through this work and that of the schools which are correlated with it, precious results will doubtless be obtained.

To sum up the whole matter, if the new device is to prove successful, one should ponder four considerations:

It must be studied thoroughly, just as music or painting or writing is studied, as a peculiar medium of expression that can do some things perfectly, other things indifferently, and other things not at all.

It must learn how to avoid altogether the things it is not inherently fitted to do; give as little attention as possible to the things it does indifferently; and put its full strength into learning how to do better and better the things that are inherently its own exclusive subject matter.

It must be safeguarded against mechanically minded teachers who will try to use it to give old methods that ought to be discarded new leases of life.

It should be fitted with a teaching technique of its own which will recognize all its peculiarities, all its limitations, and wed these with the present determination to develop, not to exploit, the child.

Motion Pictures in the Classroom

By Nelson L. Greene
Editor of *The Educational Screen*

A VAST amount of muddled argument, declaration and prophecy has been put forth during the past decade regarding the possibilities of films in the business of serious education. A leading figure in the muddling process was Mr. Thomas Edison himself, who said, ten years ago, that motion pictures would "supplant textbooks within ten years." The ten years having passed with no visible sign of any fulfillment of the absurd prophecy, be it noted that Mr. Edison modified his dictum by using the word "supplement" instead of "supplant." But the damage was done.

Unfortunately, the truth or falsity of a statement is no measure of its immediate influence, especially if it come from a source of sufficient eminence—even eminence in an entirely different field. Mr. Edison's words have shown a tragic vitality. They have been passed from mouth to mouth, from pen to pen, until they have reached practically every educator who has yet paid any attention to the visual idea. His words can be found quoted again in serious educational writings within the last sixty days. The dictum has been properly laughed at by hundreds of educators, but it has been taken as pedagogic gospel by thousands. And the end is probably not yet, so prone is the average human mind to identify authority in one field as authority in another.

Before discussing the subject in hand we would point out that the very term, "visual education," is itself undesirable and illogical. Its life should be but temporary. It can serve no permanent need any more than "tactual education," "gustatory education," "olfactory education" and "aural education." It is a truism, of course, that the educative process must base ultimately upon experience through the senses. Every one of the above mentioned "educations" has been going on from the biologic beginning of things, must always go on—but the fine term "education" will amply cover them all, as it already covers four. Why, then, must we still use the term "visual education"? Because modern school practice does not yet use the visual sense to its maximum possibilities as it does use the other four. The senses of taste and smell, and to a nearly equal degree the sense of touch, can do little more for the education of the race than they have always done and are still doing daily. The sense of hearing has been fearfully overworked ever since formal education began. Only the eye has been denied the opportunity of making its maximum and mighty contribution to the educative process. The eye's full opportunity could come only with the invention of photography, hardly a hundred years ago. We have been guilty of neglect, therefore, for something less than a century, if that is any comfort. Until this neglect is corrected, however, we must have a name for what we wish to emphasize. When the visual method has become an integral part of educational practice—not an excrescence upon it—the need for the name will be gone and it will pass away.

One more caution needs to be stated

here, strange as it may seem. Visual education does not mean motion pictures. Films are a part of visual materials, will some day be a far greater part than now, but they will always be but one of the visual aids that are to be incorporated into school equipment generally when the constitutional inhibitions of the educational realm are overcome. In treating the subject of this article, then, more or less frequent reference to the other visual aids must be made in order to avoid undue emphasis on films.

CONTRIBUTION OF THE MOVIE

It should be said to the lasting credit of the "movie," now almost exactly a generation old, that it has been unquestionably the primary factor in the recent movement toward visual education. The "picture that moved" appealed to the world as no picture ever did before; it captivated and charmed as something actually new under the sun; it suggested *life* as no other mechanical device had ever done. The films furnished a wealth of new scenes, inaccessible actualities, new experiences that were instantly comprehensible; motion pictures broadened horizons swiftly and enjoyably; and thus inevitably started the world to thinking about the power of "the picture." It was but a step, obvious and inevitable, to the idea that formal education was missing a tremendous opportunity.

The coming of the motion picture has been an immense stimulus to the use of the other visual aids such as models, maps, diagrams, graphs, posters, cartoons, photographic prints, process prints, stereographs and slides. All are means to a great and desirable end in education, namely, to let the mind work directly upon the realities of the physical world through facsimiles presented to the eye, rather than upon distorted images of those realities vaguely suggested to the mind by words. The part already played in our schools by still-picture-materials cannot be calculated, and it is small beside the rôle awaiting them in the future. Consider how large a part of the factual and concrete material of the course of study needs to be motionless to be thoroughly comprehended. The learner needs to have the oak leaf *still* for study; and it is the same for the crayfish, the pomegranate, the head of wheat, the machine, the painting, the masterpiece of architecture, the city street, the valley, the mountain,—and countless other bits of the raw material of learning. Often a film can add to and complete the concept sought, but it can never replace the still representation, for its very movement prevents concentration upon details that the latter makes possible and encourages.

Prediction as to the proportionate use of still pictures and moving pictures in the ultimate pedagogic scheme would be futile. While it will never supplant, certainly the film will greatly enlarge the scope of visual teaching. It will be another and very important visual aid, to do whatever the other forms of picture cannot do as well. There can be no logical conflict between films and other visual materials. For a given piece of factual learning, or for a particular pedagogic purpose, one of the many visual aids will be the best and should be used. We do not use a pile-driver to crack nuts, nor a hammer to drive piles. Part of the art of visual instruction is the selection of the right aid for the given purpose. The right use of that aid is the rest of the art.

The theatrical motion picture demands brief attention here, for two reasons. First, it was the theatrical market alone that could make possible the development of motion pictures to the point of technical perfection reached

to-day. The enormous cost of early experiment and later production could be met only by the enormous revenues available through the theatrical box-office. Were it not for the success of theatrical films, there could be no present possibility of educational films. The very machinery of production could not have been developed.

Second, the theatrical films themselves are already a colossal force in world education, unmeasured and probably immeasurable. The eternal and constant process of education is not confined to schools. The movie theaters around the world are doing a lot of it daily. To be sure, it is lawless and uncontrolled education, quite accidental and without aim. But it has a telling effect on the millions of minds within its reach. For the audience beyond school age, it influences opinion, attitude and conduct in every phase of human living. For the school children themselves, it has an influence, largely adverse, which carries over into the classroom to a degree little realized as yet by the rank and file of the teaching profession. It is of vital importance to-day that teachers should reckon with the theatrical movie as a definite competitor, and frequently a dangerous opponent, of what they are trying to accomplish in the classroom. When this is widely realized, it will hasten the development of a type of film that will transform the motion picture into an invaluable ally of formal education.

AVAILABLE MATERIAL—GOOD AND BAD

Gratifying as is the progress already made in the use of educational films in serious teaching, the difficulties still in the path are many and of long standing. The very name has earned disfavor with many leading educators because of the absurd stuff put out from the beginning as "educational." Prompted by such statements as Mr. Edison's, and by flamboyant comments broadcasted in the press by newspaper editors, the small fry promoters of the movie industry thought they scented profit. They got busy, with the sole purpose of exploiting the school field, about the needs of which they knew nothing and cared less. They ransacked the back shelves of the industry's vaults for superannuated reels which seemed to show any trace of being informative on any subject whatever. Some employe, conspicuous perhaps for having been through high school, was set to write supposed "educational" titles, and the resultant stuff was unloaded on the schools. The point of satiety and disgust at such impertinent "service" was soon reached by school men.

There has been also a considerable quantity of well-intentioned amateur production of educational film by ex-school teachers of brief experience and often modest scholarship. Their purpose was serious and sincere. But the theatres long since taught the public what good photography is, and nothing less than professional quality in pictures can now satisfy the high needs of the school. Equally, there must be scholarly authority behind school films as much as behind school textbooks Such quality and authority cannot be obtained at low cost—low cost is imperative since the rental revenue possible from the schools is necessarily low for the present—hence this well-meaning but weakly financed production must find its situation very difficult if not hopeless.

A third element in the heterogeneous mass known as educational films is the news reels that have a very brief career in the theatres and are thus quickly available for school use. They offer much really valuable material and are considerably used by schools in un-

altered form. But they greatly need expert editing, cutting, re-titling, with recombination of parts from different reels, to yield organ zed material that will harmonize with school work. This work, too, is costly, and no large-scale attempt at it has yet succeeded.

Industrial films constitute a large group of still greater educational value. These are produced in considerable quantity by many firms in the general commercial field, fundamentally as propaganda for their own products and processes. At first these films were direct advertising and hence more or less offensive in classrooms. But this advertising soon became extremely indirect, leaving practically nothing but an informational content which can be made truly educational by proper handling by the teacher. Certain departments of the United States Government produce many films of a similar nature which already enjoy and deserve wide use in schools.

In the field of science (geography, botany, biology, zoölogy, geology, and to some extent chemistry and physics) there is available a very large amount of material of genuine value to schools. In general, this material is probably rather near to what future educational films will be. Most of these productions are by professional firms in the picture field which have also put forth real effort to meet school needs. Often the need is still evident for a more comprehensive and scholarly treatment of the subject matter, but on the whole this group represents an excellent achievement in the progress toward educational films. Some scientific films have been produced by real authorities who are at the same time experts in picture-making or financially able to enlist such experts in the work. As time goes on this tendency will increase. Scholars will be in charge; and the technical skill needed for good pictures will be subordinated under their direction, rather than the other way around. The author of a textbook is the prime factor in the value of the work to the educational field, not the publisher who prints it skillfully. Logically textfilms should prove a parallel case.

The most significant single achievement in educational films to date is the famous series of the *Chronicles of America*, produced by the Yale University Press. These splend d pictures of American History meet the two fundamental requirements for true educational films—sound scholarship and fine technique. This is but the first of many achievements in the field that the future will bring.

To summarize, there are at the present time several thousands of films available which deserve to be called "educational," and worthy of use by schools, colleges and universities.[1] Hundreds of these films may justly be called excellent for educational purposes. With such a supply already available, why has not the business of school films reached larger proportions?

ATTENDANT DIFFICULTIES

There are two supreme difficulties hampering the development of visual education in the schools, and especially of the motion picture side of the work. First, the cost of equipment is considerable, it must be frankly admitted.

[1] The only comprehensive source of information, so far as we know, on films available for the educational field is the annual publication by The Educational Screen, Chicago, known as *One Thousand and One Films*. This booklet of 128 pages lists over two thousand films, classified by subjects, with a brief review of each film and name and address of the distributor or distributors who handle it. Over 250 producers are represented by the best of their productions. The booklet costs seventy-five cents to the general public, twenty-five cents to subscribers of The Educational Screen.

The school field is famous for having no funds to spare above present actual needs. This difficulty is more apparent than real, rather it is only a temporary one.

We have only to remember that practically every item of school equipment to-day was at one time out of the question because of its cost. As a single example take the laboratory. Time was—and not far in the past—when laboratories were unthinkable in schools. They are still extremely expensive. They are of use for but few subjects in the curriculum, they actually serve but a part of the pupils and for but a fraction of their whole time in school. Yet laboratories have passed, in a relatively short time, from the status of impossible luxuries to standard equipment. Why? Because of their proven value in the total process of education. They are no longer a luxury, but a need.

If genuine value is established for any item of school equipment it becomes a need, and funds for the real "needs" of American schools will always be forthcoming. Consider now that visual equipment costs vastly less than laboratories. Further, it will serve all the pupils, in practically every subject, and at any and all periods of the day. The value of visual education is generally accepted, it is becoming a proven "need," more funds are being devoted to this purpose every year and thousands of stereopticons and motion picture projectors are already at work in the schools. We are far on the way to the normal solution of this first great difficulty—cost.

The second great difficulty concerns motion picture films particularly and is related to the first because it makes for increased cost. We refer to the problem of physical distribution of educational films. The theatres of this country (about 17,000) are efficiently served with films through thirty or forty distributing centers, strategically located throughout the entire country so as to save time and expense by reducing transportation distance. The schools of the country (over 200,000) are far more widely scattered than the theatres, and to serve them efficiently will require an even larger number of distributing centers thoroughly equipped and co-ordinated. Such a distribution system does not exist, various attempts at it have failed thus far, and only enormous financial resources can ever establish it.

Without such a system, consistent and effective distribution to schools is impossible, save as a local enterprise for a limited territory.[2] If a film be shipped to a distant point it requires days on the road, days more to return, and the rental price for one day's use by the school is all there is to show for a week, or even two, of the film's activity. This means prohibitive cost to the distributor, or a prohibitive price to the school. Until the national distribution system comes, the schools must get along as best they can with the limited material available from a local center, and such occasional films from distant centers as can be afforded. It means, unfortunately, that each particular school is cut off from a large proportion of the worthwhile film already in existence, until the situation is remedied.

In the meantime the development of educational films must struggle under two heavy handicaps: First, schools

[2] Among the best and most active sources for educational films are the state universities through their extension divisions. About twenty universities are engaged in this excellent work and they constitute one of the strongest factors in the maintenance and development of the systematic use of films and slides in serious education. For this service the cost is extremely low, but for the most part it is available only to schools within a limited radius of the university.

will hesitate to install projectors if they are so located that they cannot be sure of getting an adequate supply of films. Second, producers will hesitate to increase and improve educational film production when there is no certain method of getting the films to the school market, for which market they are made and from which a reasonable profit must be returned to the makers. It may be emphasized here that schools should not expect educational films to remain on a charity basis, as they are to some extent to-day because of the quantity of "free film" available. Textbooks and school supplies do not come that way, neither will good educational films. Sooner or later school films must reach a commercial basis, on which they must stand or fall. Incidentally, they will stand, and firmly.

In the face of such difficulties, the use of films in serious teaching has already made amazing progress. Several thousand projectors in schools are yielding real values in spite of these handicaps. There could be no better proof of the vitality of the work, and the present activity is but a mere beginning of what is to come. One of the most promising single signs of real progress in this field is the serious and important two-year experiment recently launched by the Eastman Kodak Company. With full co-operation from eminent educators to take care of the scholarly and scientific side, the company plans to produce some genuinely educational films on certain selected subjects of the curriculum. These will then be tested out in chosen schools for results obtainable and the best method of obtaining such results. If the outcome is what it promises to be, it may be hoped that the Eastman Company, with its enormous resources for work in this field, will go on to the next problem, a national distribution system.

Just what the ultimate educational film will be, in form, content and method of use, is a field for future university research. That research will come and its results will be important. But the classroom use of film will not wait for the verdict of the scholars. It need not. For example, recent university research has established quite conclusively that the teaching of reading has been badly done for centuries past. But it is an excellent thing that the schools did not omit to teach reading while waiting for the verdict on their methods. Values are worth getting from the films, even before we learn what the maximum values are.

SPECIFIC ADVANTAGES

It can be stated with some accuracy, from experience so far, that there are certain specific advantages of the motion picture film as compared with the other visual aids.

(a) The film is needed whenever motion is essential to full understanding of a given bit of factual experience.

The form, size and structure of a sea-lion, for instance, can best be learned in the museum, in the laboratory, and from textbooks, drawings and still pictures. But a few feet of film will show how that animal lives, moves and has its being in its normal habitat, thus rounding out the concept of a sea-lion that could be completed in no other way than by a journey to the South Seas. Again, to thousands of inland boys who may never reach the shores of their own country, a complete concept of the ocean and its surf would be impossible but for the motion picture. The ceaseless struggle for existence that makes up life for the Eskimo could never be visualized adequately without a journey to the Polar regions, until the great film

Nanook of the North came. Examples could be multiplied at will.

(b) The film is the best visual tool when the continuity of a process involving movement is to be shown.

Industrial and manufacturing processes from raw material to finished product, the evolution of useful plants from the planting of the seed to the finished article in use by man, foodstuffs followed from their place of origin in any corner of the earth through all intervening processing and transporting until they reach our tables—such subjects by scores are already available in linear panoramas made possible only by the film.

(c) The film is advantageous for purposes of vivid summary or general survey of a broad topic.

A sequence in history, a topographical résumé of a region in geography, a comprehensive view of native customs and activities of a race or tribe in anthropology, a visualization of the actual physical backgrounds concerned in a work of literature, the concrete picturization of experiments, inventions or discoveries in science, the life and activities of an outstanding individual in any field of the world's work—these suggest an unlimited field that will be largely appropriated by the film.

(d) The film is unique for revealing for the first time in the history of human learning things which are too slow or fast to be seen by the human eye.

By the simple device of "stop-motion" the film shows the germination of a seed, the opening of a flower, the development of fruit from the blossom. By the more complicated device of the speed camera we can know, by actually seeing it, how a water drop splashes, how an insect moves its wings, what really happens at the bursting of a shell, what a swinging golf club does when it meets the ball, —and a host of other phenomena hitherto totally invisible.

(e) Finally, various inventions developed around the motion picture are enabling it to go beyond the realm of the concrete to some degree, or at least to enrich vastly the ordinary photographic process as it was known previously.

Animated drawing and moving diagrams and maps are devices of vast possibilities, and they are practically perfected and ready for serious use. The theatrical field is rapidly developing other features for the film such as the synchronization of sound and speech with the picture, accurate rendering of natural colors, the stereoscopic third dimension, X-ray and microscopic pictures, even the union of movies with the radio, when motion pictures can be sent through the air like the now familiar wireless messages in words. When these have been developed at enormous cost to the theatrical industry, educational films will steadily appropriate for themselves whatever will enhance their values in education.

WHAT EXPERIENCE WILL TEACH

As to the methodology of film-teaching there is much to learn. Many teachers insist that a film serves best as a stimulating introduction to a new topic, which will call for and encourage further study of details. Others maintain that the film should be used only as a résumé following detailed study, with the purpose of co-ordinating and unifying a mass of data previously acquired piecemeal. This will doubtless be found to depend on various elements in the situation—the nature of the film and of the subject, the age and character of the class concerned, the immediate purpose of the course of study, etc.—and it is unlikely that films of many kinds will all lend themselves to one single method of use.

Another question which must find its answer from continued experiment and increased experience concerns the matter of auditorium or classroom use of film, and the related question of standard-sized or below-standard-sized film for school use. There is much earnest argument on both sides of these two questions, and with much truth on each.

It seems probable that there will be a large place for mass instruction in certain subjects in the auditorium, as well as for more intimate teaching of small groups in classrooms. The former situation will call for a standard-size film in order to produce a screen picture sufficiently large and sufficiently clear for viewing by the larger audience. Quite certainly also there will develop a type of film for auditorium use which will be rather broader and more general in content and treatment. Auditorium practice will always require much preparation in advance or follow-up afterward, if the showing is to be truly an educational function. The just charge of being "entertainment" is made against much of the auditorium use of film to-day.

The classroom may well use a more detailed type of film, inclining to short lengths which will run but a few minutes, and dealing with a limited topic or part of a topic. Here conditions of the room do not require a large picture, hence quality projection can be secured from a small-size film, and at greatly reduced cost for both film and projector.

If it proves true that the two types of film develop, the question of standard and off-standard film is largely answered. Classroom film will be made regularly in the small size, auditorium film in the large. It is argued that off-standard equipment cuts off schools from the great mass of standard film already in existence. But very little of this mass is suitable for intimate classroom work of the sort mentioned above, and such small amount as is suitable is readily translatable into the small size by the film-printing machine. On the other hand, a large number of films from general production are suitable for auditorium use and these are already of the standard size which fits the auditorium projector. This would mean two projectors for the school, of course. But the low cost of an additional projector of small size for classroom use would be soon offset by the lower cost—either rental or purchase—of the small-sized classroom films.

Will schools use inflammable or non-inflammable films? Will schools rent or purchase films? The first question is quickly answered. Every foot of school film should be on non-inflammable stock. As to the second question, rental seems necessary for the present and it is the prevailing practice in practically all the schools using films to-day. Ownership of films is most desirable, for the advantages of a library of books hold equally for a library of films. But film is still expensive, difficult to store safely against disintegration, and requires much time and care to keep it in usable condition. The first high cost is by no means the last. Experiments are under way in some quarters that may result ultimately in a much cheaper form of motion picture record, which would make film libraries in schools entirely feasible.

On the whole, from research and experiment already conducted, the evidence is abundant and conclusive that motion pictures belong in education. There is much good material available now, and unlimited production will come whenever it will be used. Such questions as still remain unsettled concern largely the exact content for films in various subjects, the best tech-

nique for building pedagogic film, and the methodology of film-teaching. One of the most aggravating of all questions is this: How long will the universities wait before turning their best attention to the study of a force of such tremendous potentiality and importance in world education?

What the Movies Mean to the Farmer

By Samuel R. McKelvie
Publisher, *The Nebraska Farmer*

COMMUNICATION has ever been the determining factor in the progress of the human race. From the earliest days of the world, men have sought new means to transmit their thoughts to their fellowmen—by speech, by crude drawings, by signs at first; then by writing, by music, by painting.

When good roads began to develop, interchange of ideas became easier. Inventions such as the steam engine, the telephone and telegraph, the automobile, linked the world closer together. Then came moving pictures, not only to speak but actually to show what other men and other women are doing. With the advent of the moving picture, it may be said that the last barriers which separated the man on the isolated farm from his neighbors in the cities were hurdled. To-day, because of the many inventions and especially the moving picture, the man on the farm may keep abreast of the times as surely as any man anywhere.

Through the news reels, the farmer may take part in all the most important events which are taking place in the world. Through the dramas of the screen, he may see reflected the life about him. Through educational pictures—agricultural pictures specifically—he may learn to do his job better and to understand better the job of his neighbor.

At the same time, motion pictures are bettering living conditions everywhere—especially in the small towns and on the farms. No longer does the girl in the rural community guess as to what the styles are going to be in three months. She knows—because she sees them on the screen. She realizes that the designers of gowns in motion pictures are among the greatest in the world, that their information from fashion centers is correct and always ahead of time.

It wasn't long ago that a boy from any small Western town could be picked out the moment he walked on the campus of an Eastern university. Not now. And the girls who come East to school don't have to be taught anything about new styles, for they are getting their ideas from the same source as the Eastern girls—from the movies, many of which are shown in the rural communities only a few days after they appear on Broadway.

The moving picture theater is often the meeting place of the community, and this is important. Here all the family can gather together to meet other families. Here there can be an exchange of ideas in the brotherhood of lightheartedness. To be sure, there have always been the churches, but the people get to church only once a week, and those of one denomination do not so frequently encounter their neighbors of another faith. But the moving picture theaters and the moving pictures themselves have no denomination, but possess an appeal for all.

Greatest of all, perhaps, in its benefits is the fact that the moving picture brings reaction from the humdrum life of the farm. Tired men and tired women may slip into the moving picture theater and find relief from the worries and trials of everyday life.

The house is darkened, and instantly the spectators are transferred to a land of romance. It is a fact that people "live" the pictures they see. They are transported to the actual place, whether the scene is laid in Europe, in Darkest Africa, or in a village so like the one in which they have their being that hardly a scene is unfamiliar.

It is interesting to note, too, that a majority of people like pictures with which they are familiar. The cowboys of the Texas plains want Tom Mix and Hoot Gibson and Bill Hart. Rural folks want scenes laid in the country. They see themselves in the pictures and live them as truly as they live their own lives.

This is all important, for it permits imagination to take wing. With the development of imagination, greater longing for better living conditions comes. Basil King, in his latest book, *Faith and Success*, says of this:

> "One invention or discovery, call it what you will, has done more to rouse the imagination in those in whom it was suppressed than all that the past centuries have contributed together. I mean the motion picture. I dare to think that the significance of this new departure in human effort is not yet apparent to the great majority, even of our social thinkers. The fact is, that for the first time in the history of man, something is offered to the simpler people which appeals to them on principles they can understand. For the first time, they find their famished imaginations roused, stimulated, fed.
>
> Those who hitherto have either been denied, or provided with that which was beyond their capacity, have now been given something which meets them on their level; and the response has been outside all possible circulation."

Henry Ford is authority for the statement that moving pictures have had a material part in keeping sufficient manpower on the farm to supply the world with its necessary sustenance. "A very decided drift away from the farms," he said, in an interview recently, "was checked by three elements —the cheap automobile, the good roads over which the farmer might travel to his market, the moving picture theater in the community where the farmer and his family might enjoy an evening's entertainment."

In the past few years, a great number of so-called educational films, dealing with the farmer and his problems, and teaching modern methods of agriculture, have had wide distribution in this country. In the hands of county agents and others, these films have brought the agricultural college to the farmer's door. He could not go away to school, perhaps, but he could very well spend a morning or an evening watching how a new threshing machine operates, or how a field may be irrigated and crops made to grow on what was seemingly waste ground.

Health Pictures and Their Value

By Thomas C. Edwards
Acting Executive Officer of the National Health Council

Of the many notable advances in public health promotion, none is perhaps of greater significance than the development of effective educational methods. The instruction of all the people in the principles of hygiene and sanitary science is recognized as essential to progress toward an improvement in national vitality. This premise is now accepted, but there still remains the problem of finding the most effective means for popular health instruction. Of the various methods used or proposed, including newspaper publicity, exhibits, lectures, radio, pamphlets and similar devices, the motion picture is now conceded to be one of the most important. In the complexity of our system of modern education, and in the stress of competition in the field of amusement, it is, in fact, fortunate that we have so forceful and effective a vehicle as the "movie" with which to carry the message of good health. In this field the "movie" has already been amply demonstrated to be of great value, but in this connection it has possibilities which will greatly extend its usefulness in the future.

The Picture Appeal

The special value of the motion picture in health education is that it can make a powerful emotional appeal. Perhaps in nothing is human nature so steeped in indifference and inertia as in the matter of its health. Presenting the cold facts may interest some, but the facts alone are seldom enough to move the public at large to action. With the sympathetic appeal of a little human drama you may disarm indifference, evoke an active participation and thus, overcoming inertia, sweep an audience into the will-to-do. This, of course, is what the public speaker tries to do, but the film has all the advantage, for the audience sees the thing happening and —it must be so.

While we have some proof from authoritative sources to the effect that the cinema plays an indispensable part in developing good health habits, its definite value can be determined only as a result of an exhaustive study, a work that would require both time and capital. In the absence of such data this article must be confined to personal knowledge and what available isolated studies now exist.

Public health in general without health education in any form is like Hamlet without the Dane. A vital and necessary part would be missing and it could not function. The great discoveries of science, the corrective and constructive results of research would go for naught if the world at large were not advised of their significance and warned against some impending and preventable danger.

In our present state of civilization, health education is easily disseminated, in that there are such numerous and effective ways of reaching the public. Its acceptance and relative value, however, are problems needing our utmost consideration that we may determine accurately the best avenue through which to broadcast. Thanks to present day inventions, millions may be reached at a relatively low cost through such avenues as the printed

page, the ether wave and the cinema, not to mention direct contact in schools, lecture halls, the church and even the theatre. Human beings in the assimilation of knowledge often differ in that some obtain facts more readily from the written word, others by sound and still others by seeing a given subject portrayed in graphic form.

We are concerned primarily with the public most readily appealed to through visual methods such as the movies. Many of these people cannot be reached by the printed page because they lack the ability to concentrate and further, health does not interest them sufficiently to overcome their inertia. The same individuals, however, will sit through several reels of films and carry away certain important facts, through a natural interest in action portrayed in graphic form and mixed with entertainment. Then, too, those who are more fortunate in obtaining information in other ways will also obtain as great or greater good from a lesson portrayed on the screen.

The lecturer can talk and be heard, but lack of concentration on the part of his audience often discounts his efforts. The printed page may not be read, even though presented to those who most need the lessons contained therein. A radio health talk will not be listened to while there is music or a jazz band on the air, but unless the movie audience closes its eyes and goes to sleep, which is unlikely (for there is always the fear that something will be missed) some one or two helpful facts will lodge in his mind.

The tendency toward prevention manifest in all health education work is shown in the health films. What to do so that it won't happen, is the watchword with which almost every film closes, whether the subject is tuberculosis, cancer, diphtheria, rickets, or dental decay. Health examinations have been filmed several times and the health chores are being taught to children through half a dozen or more pictures.

Granted for the time being that the medium of motion pictures is an effective way to spread health education, we are at once confronted with the inherent problem of what type of film does its work best.

TYPES OF HEALTH PICTURES

Health pictures may be divided into three categories:

(1) Purely scientific pictures designed for both professional and lay groups. These deal with anatomical, biological and pathological aspects of a given subject. This type of film may be termed as almost entirely educational and has none of the usual motion picture qualities of entertainment. They are most valuable for use in schools and college class work, and may be accompanied by a lecture or not, but are most effective when accompanied by a talk.

(2) Those pictures in which producers have made an effort to incorporate into the same film a certain degree of entertainment as well as of scientific facts and instruction, in an effort to lighten the burden of education by carrying it along under the guise of entertainment. In many cases a sorry looking picture has been the result.

Theoretically, however, this type of film offers a much better opportunity of instilling in the minds of those we wish to reach wise truths about good health than the purely scientific or educational health picture.

(3) The third type of picture to which we refer is one whose primary aim is entertainment with some important health message so interwoven that it does not in any way detract from the film as an entertainment medium.

Were it possible to classify and grade

these various types of films the question is immediately asked, "Would the same audience react as favorably to one as to the other?" The answer is "no." But just which audience reacts most favorably is the problem which confronts those of us who are interested in health education. It is safe to say that the almost purely entertainment picture is by far the most popular, but whether it does its expected work in the most proficient manner is a matter of conjecture. Producers of health pictures have acted wisely in making films of all three types with the result, however, that those of an almost purely entertainment nature are most in demand.

At the conclusion of the late war there were in circulation less than twenty-five health pictures of any value. Then distribution was limited to churches, schools, Young Men's Christian Associations and in almost every case they were secured from some centralized point. To-day, there are over three hundred different pictures dealing with health and sanitation, which may be obtained from not one but many different places throughout the United States;—such agencies as semi-commercial firms, Young Men's Christian Associations, state boards of health, universities and voluntary health organizations, life insurance agencies and industrial groups. A film on almost any health or sanitary subject may usually be obtained directly from an agency within one's own state. Many state boards of health, government departments, industrial organizations and life insurance companies are now producing and exhibiting health films to millions of people throughout the country.

As already stated, it is extremely difficult to cite authentic figures and it is still more difficult to evaluate the effect of health pictures upon those who see them. It suffices to say for the present that the span of life is ever increasing, due primarily to scientific discoveries, yet health education in which health pictures play such an important part is, after all, the means for making useful and effective this important knowledge.

VALUE OF HEALTH PICTURES

As an example of the value of health motion pictures, Mr. Carlyle Ellis, a producer of over fifty health pictures, has called attention to a recent intensive campaign to have the children of the district around Albany, New York, immunized against diphtheria with toxin-antitoxin. Every possible means of reaching the parents was used —radio, newspapers, public speakers, churches, circularization and the movie theatres, which co-operated in showing the Metropolitan Life Insurance Company's film, *New Ways for Old.*

At the clinics, opened throughout the district, the children were soon coming in droves. Of every parent this question was asked: "What was it made you bring your children for treatment?" In more than ninety per cent of the cases the answer was, "We saw the movie."

There have been few opportunities to prove the value of health films so conclusively as this, but there is only one conclusion to be drawn from the fact that more than half the states are officially distributing or are themselves showing motion pictures bearing on health. The New York State Department of Health has a considerable list of up-state theatres which demand a regular weekly service from their large library of films. The department itself is also active as a producer, making several pictures each year.

This same department recently showed a picture called *A Two-Family*

Stork, a short film on prenatal care, in a store window of a Hudson River city. Attendance at the maternity clinic there immediately increased two or three hundred per cent.

In Texas the official health agencies sent an automobile with projection outfit and a library of health films on a three-months' tour and demonstration to the remote agricultural regions. To many hundreds of the people this was the first time they had seen motion pictures and the impression made was profound. It is well known that the most difficult people to reach with any teaching message are the adults of isolated places, but these are the very ones that are most susceptible to the emotional appeal involved in the film presentation of a health message and it is certain that the field workers could multiply indefinitely cases of measurably effective campaigning with films.

American-made films are also being used to a large extent abroad. Perhaps the most popular are two films of the U. S. Children's Bureau, a child hygiene picture entitled *Our Children*, and a prenatal-care film with the title *Well Born*. The wording on these films has been translated into five different languages and shown in Central Europe, China, South America, the British Isles and many of the British possessions, including India and Egypt. One producer of these subjects alone has shipped more than 100,000 feet of film to other countries.

EMPHASIS ON CHILD HEALTH

More and more of the health education work in this country is being directed to children, for obvious reasons, because with them the lesson will endure. This period is the habit-forming age, and so there has begun the production of health films especially for children. It is an old commentary on average human nature that most of the adult audiences are as much impressed by the teachings of these juvenile pictures as they are by those designed especially for adults. Or perhaps it is just that pictures for children are more carefully designed, with every effort made to give maximum interest to every foot of scene and maximum simplicity and clarity to the titles. Many of the health pictures planned for adult audiences depend largely on carelessly-written titles for their value, the scenes being not much more than pictures to break up the stream of long-winded word arrangements, or, at best, as illustrations.

The standards of excellence and usefulness in health films are steadily rising, thanks to the acumen of a few progressive organizations and individuals. This department of the motion picture field is backward, largely because it has never reached the plane of financial self-support. As virtually all the showings are free, there is no income from them and despite the large distribution of health films in general, there is seldom sufficient sale of prints on any one subject to pay the producer for the cost of production. In consequence, almost all health subjects have been subsidized by some health organization or government department and often the subsidy has not been large enough to make a picture of anything like theatrical standard. Many times also, of course, enough money has been spent to make a really satisfactory film but it has not been spent intelligently.

The advent in this field of such semi-public institutions as the Metropolitan Life Insurance Company and the John Hancock Life Insurance Company is exceedingly encouraging, for with their large means and their broad vision, they have selected subjects on which films are most needed.

POPULARITY OF HEALTH FILMS

Worthy of special note are the activities of the American Social Hygiene Association in producing and distributing health and social hygiene films. They have produced over thirty reels of pictures which have been sold or rented to hundreds of organizations all over the world, until at the present time there is hardly a country that does not have a library of social hygiene films. The *End of the Road* produced by this organization has been shown to over 8,000,000 people.

Working for Dear Life (National Health Council and the Metropolitan Life Insurance Company), a motion picture designed to stimulate periodic health examinations, although only about four years old, has been shown before 9000 audiences with an attendance of over 4,000,000. That it has been successful is evident by the numerous and encouraging reports received, especially from clinics, one of which reported an added attendance of 802 which was traceable directly to the film.

One Scar or Many, a smallpox picture, although in its fifth year, still is in heavy demand. Over 1,500,000 people have seen the film, which has had close to 5000 projections. This picture was shown to 12,980 school children in Gary, Indiana, with the result that over 1600 requests for vaccination were received in a comparatively short space of time after its showing.

Jinks and *The Kid Comes Through* —tuberculosis films—have met with great success and have also been shown to millions of people in all parts of the country.

These are only a few of the pictures upon which we are qualified to speak. Considering health pictures as a whole, however, it is safe to say that the three hundred or more health pictures now in existence with their thousands of copies have been shown to over 200,000,000 people.

The National Health Council, as early as 1921, compiled a list of all available health films. The popular demand for this publication, and the rapid changes and improvements in films and their producers, have made a fourth edition of this publication necessary. At the present time this list is again being revised and when issued it will contain, in its 150 pages, not only the names of films and their distributors, but all the centralized units throughout the United States that have positive copies for loan or rental purposes.

As further evidence of the popularity of health films, the National Health Council, while it does not maintain a formal films department, receives upwards of fifty requests a month for information regarding motion picture films, which often include requests for balanced film programs.

As recently as June, 1926, the Council, appreciating the necessity for a concentrated study of the entire subject of health films, appointed a special films committee. It is the plan of this committee, first, to ascertain what might be done by voluntary organizations in the field of producing health films, with a view to pooling available resources for manufacture of a higher standard of picture; second, to study the possibilities in connection with commercial production and distribution of health films.

It appears that while tremendous strides in the production and use of films have taken place in the past decade, the work has only just begun. There is a crying need for new and better films dealing with almost every phase of health.

Another very important undeveloped phase of teaching health with films is through co-operation with commer-

cial producers. It has been proven that commercial producers will not interest themselves in the manufacture and distribution of films dealing entirely or partly with health subjects. On the other hand, much can be done to insert hints regarding health habits into the scenarios of many motion pictures.

At least much could be done to give some conception of public health and hygiene to scenario writers, directors and actors, who could be taught to permit no action before the camera not sanctioned by our present-day public health knowledge, and in this constant association with proper health habits on the part of "movie" millions, much good could be accomplished with little or no cost, without in any way detracting from the "box office" value of the purely entertainment motion picture.

What Motion Pictures Can Do for Medical Education

By Joseph Franklin Montague, M.D., F.A.C.S.
Bellevue Hospital Medical College Clinic, New York City

IN the olden days (and not so long ago at that) the problem of medical education was solved in a very simple manner. The prospective physician merely apprenticed himself to some local medical celebrity and then proceeded to prosper for a variable length of time on warmed over gruel and the crumbs from the doctor's table. Meanwhile he pursued a rather haphazard course of study which made him an ex-officio party of the second part to whatever was perpetrated in the name of medical practice in the neighborhood. With the passing of time he might expect to awake some day to find himself the doctor of the community by reason of his mentor's demise. In instances where the old doctor lacked sufficient sportsmanship to die, there remained but one course for the apprentice to pursue and that was to move to a less densely populated portion of the countryside. There, in the hinterland, a new shingle was raised and for all practical purposes another doctor had been born. Those who deemed it their duty to spend more time in preparation for such arduous tasks as country practice involves, supplemented this personal instruction with a visit to the leading clinics of some nearby large city. At the time we are speaking of this meant New York, Philadelphia, Boston or Baltimore.

Such was the state of medical education in this country only a little more than a half century ago. Since then, of course, refinements and elaboration in medical education have occurred, as indeed they have in education in general. Along with the establishment and the continuous general improvement in the caliber of medical schools, there came a revival of the habit of visiting clinics, though on a much greater scale. All the leading clinics of Europe were at one time thronged with medical students from America. More lately the superiority of the medical clinics of the United States has been recognized and now the flux is towards these from all over the world. The object of all such pilgrimages is to see as many and as great a variety of cases of disease as is possible, as well as to observe the various methods employed in treatment.

In the eyes of the modern student of medical education, such medical training is now regarded in the dead even if not buried class. The intensive training obtainable from a well organized and correlated post-graduate course is certainly to be preferred to the lackadaisical lapping of medical knowledge obtained by traveling from clinic to clinic with a hope of seeing the cases that *happen* to be there. Considered entirely apart from its pleasurable features, such travel to clinics abroad is highly inefficient both from an economic standpoint and from a standpoint of special medical educational value. The immense amount of time involved, not to mention expense, the neglect of home interests and the alluring distractions (which no one resists too successfully) all conspire to render the procedure of questionable value.

Real Medical Value

It is in striking contrast with this that we note the unquestionable and

satisfying results obtained by employing the motion picture film as a method of educating medical students. I, myself, have been able to conceive and produce about 55,000 feet (nearly eleven miles) of motion picture film portraying most vividly every known variety of intestinal and rectal disease that can be shown in pictures. Cases are shown, instruments demonstrated and every modern method of treatment is shown by means of moving pictures. Any and all surgical operations are capable of being shown by this means. Not only are actual pictures of the operation employed, but by the use of animated diagrams, the most intricate procedure and operation may be shown in great detail, and in a manner whose clearness is not possible of obtainment by any other method.

By means of an invention of my own, motion pictures of the interior of certain portions of the intestinal tract have been taken and may be studied. By this I do not mean X-ray pictures, since they are only shadows cast by opaque material in the intestine, but I mean actual pictures taken in the inside of the intestine. This has never been done heretofore, and furnishes the medical profession with a new means of observing the intestines, both in health and in disease. The dissection of an entire human body—a tedious process taking months of careful work—is shown in faithful detail in my motion pictures in a little over one hour. Moreover, without the necessity of again going through the dissection, the process may be repeatedly shown until the student is entirely familiar with its detail. In this way from the seat of a comfortable chair in the lecture hall he may learn what otherwise would require months of messy work on a malodorous cadaver. Thus through the agency of motion pictures, the anatomy and physiology of the body in health, the characteristic appearance of cases of disease, and each step in the plan of its treatment may be presented.

If a student is slow to grasp, the pictures may be run twice or more times. If an interesting phase is observed the picture may be stopped and started again as soon as it has been sufficiently observed. Finally, in this series of pictures there are to be observed all the interesting intestinal and rectal cases that have come through Bellevue Hospital in the last nine years. Where else can a nine-year clinic such as this be viewed in a little over an hour? This is all the more remarkable considering the fact that the very patients portrayed have almost all passed from view either by reason of cure, removal or demise.

Aside from the immense economy of time and effort, the particular features by reason of which the employment of motion picture film is most especially adapted to the teaching of medical subjects, are its ready accessibility and its permanency of form. To this we may add the fact that it is a practically indestructible record which may be used time and time again without any more exertion than the printing of new positives from the original negatives. Availability is a very important feature in the teaching of medical subjects. For instance, a physician recently dropped into my clinic at the Bellevue Hospital Medical College and said that he was particularly interested in a certain rare form of rectal disease and wanted to see whatever could be seen on that subject. As it happened, the condition was of such rarity that there were no cases in the hospital at that particular time and for that matter had not been for over a year. Yet by the simple process of the motion picture

film this man was able to view over twenty such cases in a short period of time. When I tell you that these constituted all the cases that had come into a hospital for some eleven years past, you will readily realize the important rôle that the motion picture film plays or can play in keeping striking clinical cases indefinitely on ice.

The clearness and simplicity of the motion picture portrayal of a clinical condition stands in direct contrast to the totally inadequate view that a medical student can obtain when he attempts to observe an operation or study a case from a seat in the amphitheatre. Those of you who have been in the amphitheatre of an operating room will recall how the students and observing physicians are seated row upon row in a semicircular manner on benches whose distance range from twenty to fifty feet from the field under observation. When you consider that such field is at best six to eight inches square and that even this is encroached upon by operating hands and instruments, you can well imagine that the actual view possible is very small indeed. Contrast this, if you will, to the fact that an operative wound photographed and thrown upon the screen shows an area six by nine feet instantly visible to everybody and so complete in its clearness and abundant in its detail that accurate observation cannot be avoided.

We have noted so far the great economy in time and effort obtainable by putting medical educational facts into motion pictures and furthermore have dwelt upon the superiority of such a record from the standpoint of ready availability and repeatability, but I believe perhaps the most important virtue in the method lies in that extensive flexibility which permits constant additions, corrections or subtractions, and which makes it possible to keep the record constantly up to date and complete to the utmost. Moreover, the same flexibility permits the rearrangement of material assembled so that it may be correlated along the lines of a logical presentation of the facts on each and every medical subject.

Crying Need for Funds

I have written at length on many of the almost self-evident virtues of motion pictures in connection with medical education and perhaps a word also in regard to the possibility of its future employment will not be amiss. Most unfortunately the production of motion pictures costs money and educational institutions are notoriously loathe to spend more than they are compelled to. All their policies have been those of conservatism and for this reason it is not surprising that so liberal an idea as the employment of motion pictures should pine for sustenance when this is dependent upon enterprising ideas among educators. The result has been that it has devolved upon individuals to conceive, produce and finance whatever motion pictures have been made. Since medical men as a class are not wealthy and are also as a class rather unprogessive, the method has, as yet, but few proponents. I am firmly of the belief, however, that medical colleges will soon see the advantage to be derived from the employment of this method and will get the necessary funds to finance it. To date the only successful series of motion picture films on surgical subjects has been that of my own and this has been produced through the philanthropy of the Eastern Film Corporation of New York.

The motion picture industry could do much to further the increased use

of motion pictures in medical education if they cared to, by contributing a duplicate film on any subject of medical interest, as for instance a "shot" showing some of the leading medical centers, hospitals or medical schools both abroad and at home. A few hundred feet of this type collected here and there, and properly edited, would be a distinct contribution to medical education, which would mean practically little to the motion picture producers but a great deal to the medical profession. More selfishly considered, it would open up to the motion picture producers what I consider a neglected field at present.

It is to be hoped that as a pioneer in the field I shall be able to lead the way for others to follow. There is no question in our minds but what the entire system of education will eventually gravitate toward visual education and it will be then that motion pictures in educational work will indeed come into their own.

Public Library Motion Pictures

By Charlotte Perkins Gilman
Norwichtown, Conn.

NEVER in all our history has the human race recognized the most important features of its time, or welcomed new ones, or discarded old ones intelligently. We so violently opposed anything new in by far the greatest part of that history that little progress was made from age to age.

In our day, however, the barriers are down, new inventions and discoveries follow upon one another's heels so fast we scarcely notice them, and we live as inert and indifferent in a flood of change as we used to in stagnation.

There is no need for us to gasp in awe at each succeeding miracle of man's devising, any more than we do at a sunrise or a thunder-storm; but there is need of recognition of the full value of these gifts, and an understanding of their powers.

More than one of our great inventions appeared at first as but a toy or curiosity, or has been used for lesser purposes than those developed later. Therefore, it is not surprising that so far there has been little recognition of the true importance of the motion picture.

Part of our failure to see new and enormous values in this medium is due to the coarse misuse of it by commercial interests seeking only to appeal to the most people, and to the lowest tastes of the most people at that. We have not only the novelty of this young art to confuse us, but its degradation, the repellant anomaly of a corrupted child. Efforts at "uplifting" are ridiculed. Censorship, so far, has rather added to the ridicule. Against the introduction of the motion picture in the schools stands the entrenched book system and the question of expense; and against demand for better films in general is the opposition of the box office.

Value as an Art

Quite apart from all these considerations, we should first be clear in our minds as to the power and place of the art as an art, then of its value in social advancement, and then the best means of developing and using it.

Social evolution is primarily psychological; it is conditioned on the human mind, and most especially on communication. Speech, our basic essential, is the first distinctly human form of communication, and it made possible a wide range of progress. Literature preserved and multiplied speech, and enormously increased that progress. The printing press, magnifying the process still more, has made the art of literature the most important in social evolution; not only in its highest forms as a medium of expression for the noblest, the subtlest, the most powerful of thoughts and feeling, but in its widespread accessibility and convenience as a means of education and everyday communication.

Pictorial art in its earlier forms antedates literature, and is to this day more powerful in its appeal to some minds than words. In its highest range of beauty, or its daily use in illustration and cartoon, the picture still speaks.

Earlier than either, in a way, is the drama, for to act is a means of instruction—the animal mother shows her

young how to do the thing, and they act in imitating her. Dramatic expression is the essence of children's play, an almost universal art, too little cultivated.

In all of the arts we have the mind of one human being stimulated to express itself in a given form, with the ultimate use of reaching some other mind, to stimulate it with that idea or feeling. We may compare them by the range of thought and emotion they can express, by the number of people they reach, and by their success in reaching, and their ease of reception.

Here is where the motion picture, as a form of art, stands so high. It preserves and transmits the drama, as literature does speech; it adds to this a large part of the power of pictorial art, (this hardly dreamed of as yet, but glimpsed here and there in some unforgettable films), it takes from literature an essential message and conveys it farther and faster and to more people than books ever could.

Reading has to be learned, which takes time; to practice reading requires not only access to books but leisure and liking to read. In the marvellous condensation of the motion picture a volume may be shown in an hour, to millions at once, to all ages, classes and races.

Here is the inescapable supremacy of this art in social progress. It is the long sought "universal language," for it spreads communication world-wide and swift as eye can follow.

EDUCATIONAL AND CIVIC VALUE

We are beginning to see something of the power of the motion picture in education, meaning merely the easy transmission to children—and others—of knowledge we already have; but not yet do we see its value as a stimulator to much needed faculties now neglected. Our schools formerly developed nothing but memory, later they appealed to the reason, a most important step. But there is another faculty distinguishing us from all other animals, which school hardly touches, and which is stirred by literature and the other arts in restricted degree—the imagination.

Imagination, constructive thought, the ability to visualize what has not been, to set up some inner picture, if it be only of a crop of corn, and work for it—this underlies all conscious progress. We are of course developed unconsciously by conditions, but all our inventions and discoveries, barring those happened on by accident, are due to the use of the imagination.

Children are born with this faculty, as shown in their play, the conception of some little drama of hunting, fighting, or any work they know of, and then its enactment; the child imagines he is an Indian or a bear or a pirate, with ease. But our scheme of education, both domestic and academic, has blunted or destroyed this gift, except in cases of marked specialization.

Among people generally it is profoundly difficult to make them see what has not been; they cannot do it. Vision, the social foresight which plans for better things, remains to but few grown people; and when they seek to share their vision with others, they are baulked by this dull incapacity. City-planners, sanitarians, advanced educators, the whole front rank of thinkers who are born to push on the world, push vainly at this inert mass of unimaginative millions.

The motion picture is the greatest instrument for stimulating the imagination yet offered. Through its combined group of arts we can absolutely create that which has not been, and show it as a fact, to those unable to imagine it for themselves, and who are hard to reach either by book, speech, picture or play.

Against those who see something of these new possibilities stands "the trade," the established ranks of those investors and producers who make and sell films as they would confectionery, and who measure a proposed picture solely by its profits. They are quite right from their standpoint in saying that fewer people would pay to see "improving films" than those designed wholly to entertain.

It is also true that the majority of people buy the poorest magazines and newspapers, and the "fiction department" of the public library is most patronized. But the library on that account does not confine itself to fiction only. It provides for the benefit of the masses the best books, covering the greatest diversity of subject matter.

It is the business of the educator to train children to use a library, to like good books as well as poor ones, and to elevate the public taste. The community, recognizing the need, provides the books; and there are trained librarians to help the people read.

NEED FOR MOTION PICTURE LIBRARY

For every reason which justifies a public library of books we should also have public libraries of motion pictures. Towns even smaller than those now having libraries could have the picture kind, and their mounting thousands, each giving their share, could pay for the films. Private benefactors, like Mr. Carnegie, could help; there should be state aid, perhaps Federal aid; every village could offer a steady series of good pictures, free.

The entertainers could go on entertaining, and plenty of people would prefer "The Sorrows of Salome" or "Love at Last" to pictures of the past, present and future in the library. But the fact that it was free would have due weight. All people are not equally foolish, and even foolish ones have their lucid intervals.

The motion picture library could give courses for children as yet beyond reach in small town schools; special courses for men, women, members of different trades. It could show the wonders of the world, of the sky, of all human activities. We could gather up a basic selection of general knowledge and give it to every child in the land.

Then the *visionnaires*, wishing for better towns, could have films made showing the worst we have, the best we have, and the better ones we are going to have. Here the miraculous work of the cartoonist, now devoted to comics, could unfold before us, change, growth, progress—as a moving fact.

Women of sluggish minds, who care for nothing in dress but the newest invention of their dictators, could see the pitiful exhibition of what we used to wear, the skillfully intensified absurdity of things we do wear, and a startling array of things we might wear—if we chose. "What will you have next year?" And they could see a choice of well-designed, beautiful garments, mingled with intentionally absurd ones, and some nascent power of selection might be developed among the sheep. All manner of desired improvements could be made real to us.

Never has there been put into the human hand a tool of greater power than the motion picture. It is high time that this wonderful instrument was rescued from its degradation and used, as it will be used, to promote human happiness and advancement.

Social Standards and the Motion Picture

By Donald Young
Assistant Professor of Sociology, University of Pennsylvania

MOTION pictures present the unusual. An amusement industry in which so many hundreds of millions of dollars are invested must depend on millions of paid daily admissions, and the millions of patrons cannot in our present stage of education be expected to have their taste trained to appreciate simple annals of normal life. Consequently the movies deal with extremes of wealth and poverty, virtue and vice, bravery and cowardice, patriotism and treason, success and failure. Success must be linked with the virtues, while failure must follow immoral conduct unless there is an eleventh hour repentance. Stories of ordinary, everyday affairs are mutilated in title and content when shown on the screen. Adventurous and romantic excitement is needed to satisfy the demands of the box office.

Our Low-Brow Public

Perhaps it is not always necessary to depend on the extremes of life in financially successful pictures. A few exceptions have been recorded. Such, however, have been too few in the past to supply an appreciable percentage of the paying pictures produced. A casual reading of the brief synopses of several thousand pictures shown in the last few years reveals the fact that the ordinary scenario may be listed as "ultra-modern society drama," "western melodrama," "western comedy-drama," "romantic drama," "crook-drama," "domestic drama revolving around triangle," "comedy based on romance," "mystery comedy-drama," "heart interest drama," "society comedy," and the like. These quoted descriptions are taken at random from the *Motion Picture News Booking Guide*, Volume VIII, which contains a list of several hundred of the most important pictures issued between September 1, 1924, and March 1, 1925. The synopses given in this booking guide—and they are supposed to be of great assistance to exhibitors in selecting plays for their particular audiences—practically all begin with similar classifying statements which to some extent indicate the nature of the product. The titles are also indicative of what the producers believe the people want. Again I select at random from the same booking guide: "K—the Unknown," "The Lady of the Night," "The Lady," "The Last of Pinto Pete," "The Last Man on Earth," "Laughing at Danger," "Learning to Love," "Let Him Buck," "Let Women Alone," and "Life's Greatest Game." It would be worth the while of anyone interested in the social influences of motion pictures to secure one or two issues of the *Booking Guide* and read them carefully with thought for the present and future of American ideals.

The settings in which these pictures are shown assist in carrying out the illusion of extremes. Los Angeles, San Francisco, Chicago, Philadelphia, New York and others of the larger cities have numerous luxurious and well attended theatres such as Graumann's Egyptian, The Capitol, The Stanley, The Fox, and others equally pretentiously equipped. Cities with populations as small as twenty or thirty thousand people have little copies of the larger houses. The uniformed attendants, the soft carpets

and hangings, the ornate lobbys, the highly decorated interiors and stage settings, are well known. Huge pipe organs, crowded orchestras, elaborate prologues and "divertisements," aid in creating "atmosphere," an "atmosphere" which can exist for most of the audience only in the theatre, but which nevertheless has a stimulating attractiveness for that audience.

CATERING TO FALSE STANDARDS

A charge frequently directed against college fraternities is that they allow young students of limited means to become accustomed to higher living and social standards than they will be able to maintain after graduation, with the result that a disagreeable period of readjustment is necessary when school days are over. Other fraternal organizations which emphasize ritual, title and uniform, modern hotels, clubs, books, magazines and newspapers, all help us to lift ourselves above the drab and common place, but only in imagination, and temporarily. The supper club and dance hall perform the same function. So do the legitimate theatres. In other words, the motion picture theatre does not stand alone the object of the charge that commercialized recreation is creating a reckless lack of appreciation of true values.

The stage, books, magazines, newspapers, fraternal organizations, hotels, clubs, dance halls and motion pictures stand together, then, in that they introduce and spread personal and social standards far beyond the reach of most of us. Few people become wealthy. Most of us are not beautiful, brave or entirely virtuous. The individual strives for success, and usually achieves some small measure thereof. A child's finances are reckoned in terms of pennies or nickels; a young man's, in dollars or tens of dollars. The farmer's, the banker's, the mechanic's and the teacher's assets are all counted in different denominations. Difficulties arise when the mechanic learns and tries to use the banker's measure; when the neutral sales girl apes her more favored sister of the screen; when the school boy idolizes the false heroes of the movies; when the tired housewife in her hot, smelly kitchen envies the indolent, much-servanted society matron. Motion picture theatres are near our homes, the admission price is low, and the subject matter is so presented that it can be absorbed without effort by genius or moron. We become part of the picture we see, or the picture becomes a part of us. Of all the amusements mentioned, it is the motion picture which presents impossible standards most frequently to the most people with the most personal and enticing appeal.

Social competition in the past has been competition with neighbors and with fellow workers. The farmer and his wife who knew nothing of city styles were contented with their patched and out of date clothing. When summer boarders arrived with their more recent creations, dissatisfaction resulted, and the rural couple adopted the city styles, some times at a considerable cost. City styles may not have been adapted to the country. They may have been too expensive for the farmer's purse. They were very likely to be mangled in the transition from urban to rural life. In the same way, social and economic standards developed by one group may not be adapted to another, may be too expensive for another, and are very likely to be twisted out of shape when another group attempts to adopt them. Yet there are thousands of people in this country, old as well as young, who are consciously and unconsciously trying to live up to standards they have absorbed from other groups as seen in the movies, groups living under totally different conditions and with whom

they could not successfully compete save by accident.

Some of these people may be aided by the establishment of higher standards which are possible of achievement. This desirable effect should not be underestimated, although the majority have to be satisfied through shallow imitation. Beauty may find a substitute in paint, lipstick, pulled eyebrows and a freak bob; fashion may be interpreted to mean nudity and plenty of cheap jewelry; wealth may mean squandering; romance and love may become promiscuous indulgence in "petting parties" and illegitimate sex relations; home may be idealized as a villa with servants, numerous social functions and a nurse for the children; patriotism can develop into fanaticism and heroism into grandstand plays, for it is so much easier for the masses to imitate cheaply than to realize the actuality.

CENSORSHIP NO SOLUTION

There is a solution to this situation, however, and it does not lie in censorship, though censors may do valuable work. Censors cannot prevent the monotonously continuous showing of luxury, exaggerated bravery, adventure and too evident virtue. At best, they can eliminate only the crudest violations of our moral code. When they attempt more, they become ridiculous. These crudities within the control of the censors are only a minor part of the problems connected with motion pictures, yet they have received the greatest attention at the hands of our reformers, legislators and educators. Their elimination, even if they prove to be as numerous and as harmful as supposed, is simple.

The difficult problems of motion pictures lie in the unavoidable and unhealthy effects of any process which tends to mold millions of people in thousands of occupations and environments, people with widely differing potential abilities, into a universal social pattern. We no longer believe that ideal democracy is attainable in any field, be it government, industry or morality. It is not reasonable to hope that the recent improvements in means of communication will permit the creation of a workable set of standards which can be used by all Americans in all walks of life, but multitudes nevertheless eagerly try to live up to a movie director's version of society. It is pathetic that this version, which is so readily believed by those who have had experience only with routine, is at best usually no more real or possible of attainment than a mirage. Socially pathological conditions are the result.

It might be that individual American standards would grow more in accord with individual needs and potentialities if all motion picture theatres were closed and kept closed. That of course is impossible. Nor can the movie audiences be separated into a number of groups, each to have its pictures selected for it with all consideration and care to guard against the corruption of its members.

AN ENLIGHTENED PUBLIC OPINION

The only other way out of our difficult situation is through some basic change in the nature of the pictures themselves. Such change must be a change to pictures which will teach true social values while maintaining high recreational qualities. It can result only from a new attitude, not on the part of the industry, but in the demands of its patrons. An untrained child cannot appreciate the merits of a college text book on ethics, nor can our mushroom-movie audiences understand or request pictures which would benefit rather than hinder their own develop-

ment. Motion picture audiences must be consciously trained to know good pictures as a boy must be trained in a knowledge of the classics. Then only will the industry produce movies good in a positive as well as a negative sense.

The ignorance and misinformation of the ordinary citizen underly our defective social standards. The misrepresentations of the pictures which contribute to this situation have already been noted. Censors do not help this situation. They have no positive educational program to vitalize their ineffectual eliminations. The state, the church, various civic associations and the motion picture producers themselves have attempted reforms through legal censorship, blacklisting and voluntary boycotting. The constructive results have been of no moment.

Enlightened public opinion is a possibility, and the very agencies which have expended so much energy in the enforcement of taboos could be most forceful in the establishment and dissemination of scientifically determined social standards. Some such progressive work has been done. Federal bureaus at Washington have issued limited lists of motion pictures that are useful and available in health work, safety-first campaigns, child welfare, farming and farm life, and other educational subjects. The National Board of Review in New York selects deserving pictures and makes them known to all who may be interested. Various religious denominations and civic associations have been similarly helpful. Schoolmen have done their share. All this, however, is only one of the many serviceable devices —possibly the most obvious—whereby the social level of motion pictures may be raised. To be effective, a program should be complete, while such efforts as these are fragmentary and haphazard.

POSITIVE CRITERIA FOR PICTURES

A well-rounded program for the improvement of the motion picture situation could properly begin with the determination of the positive criteria by which pictures are to be measured. Negative criteria have been developed by boards of censors here and in Europe, by religious officials, by women's clubs and the like. Any court could decide with fair accuracy what might not legally be shown on the screen. How many jurists or censors could agree on what should or should not be shown as a matter of scientific social policy?

Scientists are beginning to tell us that they have useful information for society if society will only accept it. Ethics should certainly have something to say about our future screen policy. So should psychology, biology, political science, sociology and economics, as well as every other study with social implications. Is it wise to show so many pictures in which the hero dashes through six reels of high life on inherited cash and justifies his career by a few film feet of repentance? Are there not too many Cinderellas floating into wealth impressing themselves on the minds of our youth, unsupported save by good looks and a sweet disposition? Why not help destroy a number of our popular superstitions by sticking to reasonably sound economics and biology? Are there not too many pet myths kept alive and spread by the movies? If you have attended a picture show in the last year or so, try to remember whether the hero was a Nordic type or whether he resembled a southern European. Did the villain's appearance tend to support any racial myth? What was the probable effect of the picture on the opinions of the people who saw it in regard to religion, capitalism, government and morality? Would it tend to make them more conservative and dogmatic,

or would it assist in opening their minds to new ideas? Your answers to these questions will demonstrate clearly the need for a conscious plan which will insist on the intelligent use of motion pictures as a socializing factor.

HOW CAN IT BE DONE?

Assuming, then, that science has reached the point where it can assist in establishing adequate criteria of conduct which are workable from a motion picture producer's point of view—and it is my opinion that a good beginning has already been made—how can we effect a sufficient change in popular attitude to make itself felt in Hollywood?

The schools and colleges are naturally the first agencies to which we should turn. Courses in community civics, the various social and natural sciences, literature and the arts are making their impression, and should continue to do so with increasing force. Unsupported, however, by conscious effort in the domain of informal education, they may result in little more than temporary lip service to the social implications of scientific facts.

Here is where the church, women's clubs, civic associations, governmental agencies and philanthropic foundations can be of service. Let them put aside their emphasis of the past on negative corrections and turn to the more fertile task of socializing knowledge. The educational work of denominational and interdenominational organizations such as the Institute of Religious and Social Surveys, the Knights of Columbus, the Young Men's Christian Association and the Young Men's Hebrew Association, the Federation of Women's Clubs, the Russell Sage, Carnegie and Rockefeller foundations, the Institute of International Education, and innumerable other projects are thousands of times more effective in their ultimate influence on the character of our motion pictures than any board of censors or National Board of Review can ever be. Such forces can be made to outweigh any harmful influence of motion pictures, and in time to change their nature.

This possible change is illustrated by the fact that exhibitors are coming to realize that the "dramas" of fifteen or twenty years ago make excellent comedies to-day. Old-time reproductions of "sirens," "Salvation Nells" and "Westerns" are greeted hilariously by our more sophisticated generation. Stories of "Tony the Newsboy's" phenomenal rise in the business world no longer "get by" unless they have a considerably more generous coating of reality than was required in 1913. The modern screen flapper and "other woman" are more plausable than the passé vamp and ancient siren. In other words, our movie audiences have learned a lot that is true in the last few years which they are now using in judging the pictures they see. They also learned quantities of regrettable misinformation from the "greater movie" which is a part of our national life. This form of spreading significant inaccuracies can be curtailed. With purposeful effort on the part of our educators, scientists and social leaders, the impossible motion picture of to-day will be the comedy of to-morrow.

The Relation of the Motion Picture to Changing Moral Standards

By Harmon B. Stephens
University of Tennessee

NO competent observer will deny that certain changes in moral standards in the United States are to some extent linked up with moving picture exploitation. The relative importance of such influence in the complete picture of stimuli acting upon the public is a problem which is too complex for this discussion.

To make the subject more difficult, whether such changes are an aid or a deterrent to social progress is a question involving numerous interacting factors. As an example of a change in moral standards, we may cite the steadily mounting divorce rate. Whether such changes are a benefit or a calamity it is not the purpose of this article to attempt to determine. It is intended only to cite facts and opinions indicating the extent to which motion pictures have encouraged or intensified a number of changes in moral conduct.

Limited space makes it impossible adequately to treat both the hopeful and discouraging aspects of the problem. Since the pleasant and constructive features are being constantly presented to the public through well-organized propaganda, engineered by some of the most highly salaried men in the United States, the writer feels justified in dismissing this phase of the subject with general statements and devoting most of the space to disturbing elements which challenge our most serious attention.

It may be stated at once that most of the news reels, travel pictures and educational subjects are so presented as to provide cultural enrichment for the general public to an extent never before possible. Wholesome romance and adventure have been made available even to the illiterate, and have been a timely relief to the monotony of piece-working and machine-slaving. Wholesome pictures, particularly in recent years, have been in the majority, and progress in both artistry and technique has been marvelous. On the other hand, there have been recent releases more likely to undermine accepted moral standards than anything the writer has observed in fifteen years of special interest in motion pictures. Improved artistry and technique have often provided attractiveness for questionable things which crudeness formerly left uninviting. Furthermore, one's enthusiasm for a really fine picture is often jarred by incidental touches of vulgarity or sensual emphasis, which appear to have no importance to the picture except as a basis for sensational advertising.

Vital Need for Regulation

The fact that a majority of recent releases are wholesome provides no excuse for indulging in an orgy of blind optimism. Every few years since the infancy of the motion picture industry there have been periods of self-cleansing, abetted by threats of legal remedial measures, which have been helpful, but never sufficiently thorough to prevent relapses. Furthermore, while much of this cleansing has been due to high-minded motion picture men, who have visioned the relation between public welfare and the future of screen enter-

tainment, no one can say to what extent the public has been misled by promises and propaganda devised to tide over a period of public arousement.

It must also be stressed that conduct may be adversely affected by a relatively small number of anti-social exhibitions reaching the general public. Social safety demands constant control of imperious instincts, all too easily released under conditions resulting in tragic consequences. This is particularly true of young people and of the mentally immature.

The influence of a single pupil may prove a source of corruption to a class of fifty.

If as many as ten per cent of the pictures generally circulated were as extreme as some hereafter referred to, the situation would be very serious. The motion picture public reacts against an over-dose of anything, whether it be sex stuff, historical films, or spectacles. Within a few years, the exploitation can be repeated along altered lines, with an added technique that makes the effect of the individual films better or worse as the case may be. By 1916 most producers had seen the doom of the old style serpent-like vampire; her villainy was never in question, and in the audience one might hear whispered exclamations of "Isn't she terrible?"

ROUSING DORMANT EMOTIONS OF YOUTH

Before the optimists, however, had reached their peak of rejoicing over the passing of vampire stuff, a new type had appeared, the "baby vampire," who made "vamping" so attractive that to be called the "school vamp" lost whatever sting it had. The writer heard a little girl about ten years old proclaiming that she would like to become a vampire.

Later came the flapper heroines, some of whom broke most of the Ten Commandments with such vivacity and cleverness that they were rescued in the nick of time from paying any just penalty by an attractive hero of sturdy character, with the result of a "happy ever after" romantic ending. At one such exhibition, three young girls, aged about fourteen to sixteen years, were giving vent to such exclamations as "Isn't she darling?" and "Oh, I love her!" The object of their worship was a flapper heroine type who swore, smoked, imbibed cocktails freely, danced with sensual abandon and finally won the love of the hero as an aftermath of descending unchaperoned upon his bachelor apartment after midnight. A girl teacher, a recent university graduate, was heard to express similar admiration. Will anyone deny that making questionable conduct attractive adds to its danger?

Many people imagine that tacking on a moral or a penalty at the end of a film depicting adventurous anti-social conduct provides sufficient warning to the young. Dr. A. T. Poffenberger, of Columbia University, has made some study of this point. To quote:

> Motion pictures containing scenes vividly portraying defiance of law and crimes of all degrees may, by an ending which shows the criminal brought to justice and the victory of the right, carry a moral to the intelligent adult; but that which impresses the mind of the mentally young and colors their imagination is the excitement and bravado accompanying the criminal act, while the moral goes unheeded. Their minds cannot logically reach the conclusion to which the chain of circumstances will drive the normal adult. A survey of any group of posters advertising motion pictures will show a surprisingly large portion suggesting murder, burglary, violence, or crime of some sort. Considering the almost unlimited audiences which the advertising posters command, their careful control would seem

a greater necessity even than that of the play itself.[1]

In one of the "white-slave" films which held sway a few years before the World War, the heroine is backed up against a bed behind locked doors struggling to avoid the brutal embraces of the villain. In the nick of time the hero batters down the door and rescues her, with the result of a romantic ending. A mother took her sixteen-year-old daughter to see this as a "lesson." She asked her girl what she thought about the picture and was astonished at this reply: "Oh, mother, wouldn't it be just wonderful to have a thrilling adventure like that?" This was in San Francisco. People lined up for over a block at the ticket window to see this exhibition, due to what the press agents call "hook-ups" with the press and clever appeals to morbid curiosity. A prominent preacher was given a whole Sunday feature page in which to praise such films for their wonderful "lesson." A few years later the National Board of Review issued a blanket ban against all "white slave" films featured as such. "White slavery" is now seldom referred to in photoplays.

But there is no end of underworld life, eddying around brothels and "crook hangouts." The rape-like tactics of the lustful villain have been reincarnated and made "artistic" through the Apache "love" dance of the French underworld. The more brutal the waist, shoulder and throat grips, the harder the woman is thrown to the floor, the more fiery the passion, the greater the "love." The "kooch dance" wriggles, which the producers promised to eliminate several years ago, were vulgar, and will not come back again till they can be made in some fashion "artistic." But they were never the equal of the Apache dance in depicting intense, sexual abandon. In a recent photoplay, in which the plot is based upon Apache "love," a very decent sort of a wealthy American spends thousands of dollars upon an Apache queen of the underworld in an effort to win her away from her notorious male consort. In a luxurious apartment supported by the American, her maid attempts to teach the American some "cave-man" tactics to aid his quest, but his lessons are insufficient. In the final sequence of events, the Apache queen goes to her consort in their underworld dive, and by very sensual entreaty persuades him to dance. The resultant "love dance," partly deleted, is so brutal that she is nearly killed, but it reconciles them, and the American, sadder and wiser, goes his way, having learned the true nature of Apache love! The picture as a whole seems to be a sort of glorification of the rape-like tactics of what the dance artists and producers assume to be Apache love.

Is it inconceivable that such vivid picturizations of sadistic, lustful abandon should stimulate young people to act antisocially? There are of course other factors, but is that an excuse for minimizing this one? Statistics indicate an increase of thirty-three per cent in cases of criminal assault upon females. No doubt this percentage would be lowered if all factors entering into the reports were adjusted, but the guesses of certain optimists as to the relations of these factors are not likely to be as reliable as the cold figures. Furthermore, the rate at which reports of such cases are coming in where the offenders are boys or young men of normal or superior intelligence and good character should cause careful scrutiny of all possible inciting factors.

Before bringing in additional concrete illustrations of various state-

[1] "Crime and the Movies," *Literary Digest*, May 7, 1921, p. 19. Quoted from an article in *The Scientific Monthly* by Dr. A. T. Poffenberger.

ments, it is well to outline several points in attempting to estimate the effect of motion pictures upon conduct.

MOVIE INFLUENCE IS UNIQUE

First, we must bear in mind the psychology of mental shock. The term as here used refers to sensations of surprise, offense or horror which have no immediate tragic personal consequences, and to which one may become accustomed. It is not difficult to discover persons who are so hardened to vice and indecency that the most startling perversions make little impression upon them. No one will argue that such a lack of sensitiveness is desirable for the average citizen, and for the mentally immature it is a calamity. Much of the division of opinion as to the danger of certain pictures is due to the fact that some people are more accustomed to indecency than others. No one would argue that getting accustomed to a bad smell makes it desirable, or that getting used to seeing dirty milk bottles makes them safe. Many of the most dangerous influences never produce violent shock. Their effect is so gradually cumulative that the evil is not recognized till it is almost beyond repair.

The hope and yet the despair of humanity is that social groups never consciously encourage what is recognized as evil, yet they are constantly becoming so accustomed to one or more evils that they cannot be aroused in time to prevent great injury.

A second point relates to the relative influence upon conduct of the several mediums of expression. The writer received the following statement from a noted psychologist:

"On a scale measuring motivation of conduct, a given situation would probably rate lowest in print, next higher in still-pictures, next highest in motion pictures, and highest if reproduced in actual life." Sir Gilbert Parker once stated that photoplays might be expected to have more influence than spoken drama because they seemed more real.

It seems reasonable to assume that the motion picture comes nearer to reproducing real life situations than any other medium of expression. Dr. William Healy, in his study of the individual delinquent, cites plenty of evidence of the effect upon minors of real life situations in the form of environment.

We find that educators, as far back as Quintillian and Plato and Aristotle, have insisted upon including in the reading of adolescents only such passages as would build ideals and character. If this is true of reading, how much more is it true of motion pictures?

A third point of importance is that, according to the estimate of one producer, eighty per cent of the box office revenue is derived from what may be called family audiences. It has thus become almost impossible to separate adolescents from adults; they all receive the same fare. Comedies which the children cry for are put on the same bill with features suitable only for adults.

The situation has been admirably stated by Dr. Edward A. Ross:

> Never before have we had to confront the question whether the great tragedies of passion are fit for juveniles, because as literature they reached only those minds ripe for them. But filmed they attract the very young and we are obliged to ask ourselves: 'Are these treasures of literature the right thing for boys and girls to be occupied with?'
>
> Most emphatically I should say 'No.' No sensible parent wants his Billy or Molly to become familiar with the behavior of grown-ups under the power of the master passion until nature gives intimation that she is ready. He has already about all he can do to keep his young folks straight in

the trying interval between their becoming physiologically men and women and their marriage. The last thing the thoughtful parent desires to see is this period prolonged and the strain increased. One reason for the hearty response to the juvenile recreation program is that it sets up a strong competitor with the sex interest. The founders of the outdoor corps—the Boy Scouts and the Camp Fire Girls—discovered another means of keeping down sex tension. But in comes the film and ravels out what has been knit up with such care. Week after week the children sit watching on the screen handsome heroes and lovely girls and lustful, leering villains. The man and the woman enamored and alone in a boat, in a studio, on a tropical island, in a forest glade, on a balcony, in a shipwreck. Youngsters of ten or twelve years watch scenes of fascination, pursuit, love-making, embracing, kissing, passionate abandon—which the jaded, commonplace adult, somewhat disappointed with self or spouse or the drabness and adventurelessness of his daily existence, finds stirring and refreshing—but which are to children what fire is to tow.[2]

IS YOUTH BEING SAFEGUARDED?

A recent release which received unusual praise from the critics, and which indeed is unusual in its simple artistry, is peculiarly unfortunate as adolescent entertainment, if we are going to continue to ask young people to refrain from illicit adventures. This is Chaplin's first serious drama, *A Woman of Paris*. Agnes Smith has written an excellent review of this, appraising it, however, only from the adult standpoint. To quote:

To get down to a consideration of the merits of *A Woman of Paris:* The story is ridiculously simple. A young French girl leaves a small town after a tragic love affair. She goes to Paris, captures the interest of a wealthy man and leads what the flappers jokingly call 'a life of sin.' Her 'life of sin' is pictured as much more proper, congenial and serenely happy than most marriages. Chaplin has a gorgeous time indicating the relations of his erring couple without stepping on the toes of the censors.

And he also has a gorgeous time indicating that 'living in sin' isn't half so terrible as it used to be in the productions of Ivan Abramson. The man and the girl are polite, considerate and genuinely fond of each other as two human beings. But, of course, the lover of the early tragedy has to show up and spoil a perfectly charming life of crime. The girl, true to her type, is sentimental and wants to marry him, even though she must share his poverty. His mother objects and the boy kills himself. Whereupon the girl reforms, as the saying goes, and breaks up one of the most pleasant illegal households in Paris.[3]

Before concluding this article, we may raise the question as to the progress being made by the producer's self-cleansing program before mentioned. The following comparison is thought provoking:

Previous to May, 1921, Emma-Lindsay Squier described one or two scenes in a film which photoplay exchanges at first refused to handle because of its supposed indecency. To quote:

There was another scene where the 'other woman' is using her seductive powers to entrap the man she wants. She undressed —behind a curtain—and donned a black chiffon negligee. It was handled delicately, but it was bold. The cutter's shears haven't left a remnant of that episode.[4]

A little over five years later a feature film called *Up in Mabel's Room* was witnessed at Madison, Wis. This photoplay relates the complications brought about by what a theatre lobby advertisement described as a "cavorting chemise." At one point a certain Garry has been intruded upon in his

[2] Excerpt from an address by Dr. Edward A. Ross, on February 11, 1926, before the National Motion Picture Conference at Chicago.

[3] "The Screen in Review," by Agnes Smith, *Picture Play Magazine*, Jan., 1924, p. 52.

[4] "What Do Men Need," Emma-Lindsay Squier, *Picture Play Magazine*, May, 1921, p. 70.

bachelor apartment by Mabel, from whom he is supposed to have been divorced, and he is opposed to any reconciliation. Phyllis, Garry's fianceé, has decided to come and say good night (after a cabaret party) and Mabel wishes to break up the engagement.

Now comes a five minute sequence as follows: The butler announces that Garry's betrothed, Phyllis, wishes to come in to see him. Garry hustles Mabel behind a screen in his apartment. Phyllis enters as though in anticipation of a good night kiss. Mabel tosses her jacket over the screen. Garry tries to explain this to Phyllis. Then a close-up is shown of Mabel behind the screen removing her shoes, which she sets out in front of the screen. Garry explains to Phyllis that they belonged to his sister and were to be used as ash trays (*e. g.* of some of the comedy titles!). Then a close-up is shown of Mabel behind the screen stooping as though removing her stockings. Then the stockings are thrown over the screen, then a ladies under vest, then a pair of lacey little French panties. Garry now hustles the dismayed and astonished Phyllis out of the apartment and returns to face the screen at a distance of 15 feet or so. Mabel appears peeking from behind the screen, just her head, bare arm and shoulder, apparently naked, and calls "Ooo-ooh, Garry!" He is shocked and turns bashfully away. Again she calls, "Oh, Garry, come here!"

Garry refuses to even turn toward her, so she comes out from behind the screen, fully dressed save for her shoes. As she approaches he covers his eyes with his hands, supposing her to be naked. She turns him about so that he faces her, but he still keeps his hands tightly over his eyes, bashfully shocked. She pulls his hands away but he still keeps his eyes closed; then opens at her insistence, and sees he was fooled. He insists that she leave the apartment; she calmly goes over and starts replacing her underwear in a little vanity satchel, shaking out the French panties and holding them spread out in front of her bosom as she does so. This explains how she could throw such things over the screen and still be dressed. But the sequence was deliberately handled so as to make the audience believe she had actually disrobed.

The accuracy of this description was attested by a second observer who read it after witnessing the picture. This is but one of several questionable sequences in the same picture. At a Sunday matinée performance the shrill laughter of children completely drowned out the hilarity of adults. Young high school fellows were there with their girl friends.

The picture was produced by a member organization of the Motion Picture Producers and Distributors of America, which association, through Mr. Hays, has for several years been assuring the public that member producing companies were no longer permitting questionable scenes.

The main title of the picture bore the legend, "Passed by the National Board of Review."

The writer has recently witnessed other photoplays produced by member companies of the Motion Picture Producers and Distributors of America which carried sequences equally questionable—sequences which some young college fellows referred to as "the hottest yet."

If we grant that the adolescent is less under parental control than ever before, and his conduct more influenced by whatever the community tolerates, then we should be very cautious lest we place too much confidence in dollar-guided standards.

The proper attitude to take would seem to be that expressed several years ago by H. Dora Stecker, at one time director of the Clifton Motion Picture Theatre of Cincinnati:

> The machinery created by the industry through Mr. Hays *is not a substitute* for the efforts which the public is making, and has made, to protect itself; *it is merely supplementary.*

In Conclusion

In a short article it is possible to consider only a few aspects of the relation between changing moral standards and the motion picture. The highly important matter of sensational exploitation has barely been mentioned. It is a fine thing to have our attention called to wholesome entertainment. For that we should be grateful. It is another thing to have the most risqué aspects of a picture, suitable only for adults, if for anyone, paraded before the eyes of the young on billboards, in leaflets distributed from door to door, in the family newspaper, and on the photoplay screen as an announcement of future entertainment, often in connection with a wholesome photoplay to which parents have been especially urged to take their children.

But enough has been presented to suggest that the motion picture has effected and will continue to vitally effect the moral conduct particularly of the young.

It is the writer's conviction that the recreation of the young can never be safely left to commercial exploitation. The commercial theatre was formerly regarded as adult entertainment.

Let us hope that the day will come when the needs of the young will be met through state or community supported circulating libraries of approved standard films—the coming classics of the screen—exhibited on a non-profit basis in school auditoriums or community theatres as a part of a balanced recreational program. Progress in this direction is well under way through the efforts of clubs, university extension divisions and forward looking civic organizations.

How the Motion Picture Governs Itself

By C. C. Pettijohn
General Council, Motion Picture Producers and Distributors of America, Inc.

TWO effective answers to any proposal of political censorship of motion pictures are: first, censorship is not necessary; and, second, censorship doesn't work.

In order to make sure that the first premise is correct, the motion picture industry has so organized its production that the steady stream of photoplays issuing from the industry is meeting with the approval of the vast majority of thinking Americans. The truth of the second premise is self-evident when we recall that there are no standards on which censors may base their opinions except their own standards, and that these standards may have no earthly relation to those standards which you and I have established for ourselves.

Political censorship, any way you look at it, is un-American in principle and counter to the ideals of government under which this nation was launched. It never has and never will meet with the approval of the majority of American citizens, who are jealous of their rights of free speech, free thought, and free expression in their arts.

On the only occasion when the voice of the people could be heard directly in the matter of censorship of motion pictures, there was a thunderous "no" against the proposal. And that voice was the voice of conservative Massachusetts, which is peopled by the descendants of those Puritans who sought these shores for the exercise of their rights of self-determination. On November 7, 1922, a vote was taken. The question was: "Do you want censorship of motion pictures or not?" Those who said "no" were 553,173 and those who said "yes" were only 208,252, a clear majority for the opponents of censorship of 344,921 votes. And of the forty-eight hamlets in all Massachusetts which showed a majority for censorship, *not one possessed either a motion picture theatre or a newspaper.*

Why Censorship is Unnecessary

Whatever reasons there may have been for censorship of motion pictures in the early days of the industry—and it is hardly likely that such marvelous progress could have been made if there had been serious ailments—those reasons no longer exist. The motion picture industry has regulated itself and its product to-day compares favorably with the product of literature, spoken drama, or any other of the arts, and it is no idle suggestion that certain themes, broadly handled in the so-called realistic drama and literature of the day, have failed utterly to reach the screen.

The producers who belong to the Motion Picture Producers and Distributors of America, Inc.,—and they are producers of eighty-five per cent of all pictures made—more than two years ago adopted a formula by which they intended to prevent the prevalent type of book and play from becoming the prevalent type of motion picture. Here is how that formula operates:

When any member company is offered the screen rights to a book or play of a possibly questionable nature, its representatives immediately inform

the offices of the Motion Picture Producers and Distributors of America. If the judgment of the member company to the effect that the picturization of the subject matter is inadvisable is confirmed, a notice is sent to all the other member companies, giving the name of the objectionable book or play. Such company members, thus having their attention directed to the subject in question, have the opportunity of avoiding the picturization of the novel or play. During the year just passed, this plan has resulted in more than 100 plays—including some of the best sellers and stage successes—being kept from the screen, not only that group of books and dramas much talked about, but also a large number of others against which no specific protest had been directed.

This method, which is thoroughly legal and which has proved thoroughly efficient, is not censorship in any sense of the word. No censorship could have brought about the results which have been attained. At the same time this formula does not by any possible interpretation limit the production of vital or artistic pictures. Any method which did that would fail absolutely.

Not only has this formula been successfully operated, but the industry has attracted to it many of the leaders of America, whose opinions are of value and whose co-operation is creating a new order. To assimilate suggestions and criticisms which have been invited, an open-door policy has been established and many suggestions have been put into effect.

Going even farther in this spirit of co-operation, the industry has invited interested individuals and groups to assist in making pictures. A group of ministers, gathered by the Federal Council of Churches of Christ in America, conferred with the producers about the scenario *The Scarlet Letter*, for instance. Another group so discussed *Thank You.* A third was called into consultation for *A Woman's Faith.* And so on down the line.

Unpopularity of Censorship

Prior to the year 1921, the following states had passed laws providing for the censorship of motion pictures:

Pennsylvania	Maryland
Ohio	New York
Kansas	Virginia
Florida	

The Florida law provides that pictures shown in Florida must be censored only when they have not been passed by either the New York Board or the National Board of Review. The other states have their own censors.

The Maryland and Virginia censors have, from time to time, frankly stated that they have found fewer and fewer eliminations that should be made. All of the various state censor boards realize that any cause or demand for censors is on the wane, and the most enthusiastic censors are finding it hard to locate enough eliminations to justify their jobs. Kansas and New York have repealed that part of the law in so far as news reels and educational subjects are concerned.

Both the Republican and Democratic parties have indicated that they will recommend the repeal of censorship in New York at the next session of the legislature.

The city of Chicago some years ago passed a city ordinance providing for a drastic censorship of motion pictures. This Chicago Board is an exception to the general trend; it is becoming more drastic and more exacting in its demands. For twelve years the Chicago censors have most thoroughly eliminated from all motion pictures any reference to crime, holdups, carrying of fire-arms, bootleggers, etc., etc.,

with the result that they have the nicest, cleanest, most orderly, crimeless city in the world to-day! This is a great argument for censorship!

Since 1921 not one state in the union has passed a censorship law, and none of the states having censorship laws has added anything to them. I find that legislators generally feel that the industry itself, at the source of production, has brought about the right kind of motion pictures.

In 1923 thirteen states considered censorship laws and none of them was passed.

The great trouble with censorship, political censorship, of course, is that there are no standards on which censors may base their opinions except their own. And when you drag the thing out, you find at length the conviction that no three men were ever constituted to know enough to tell the one hundred and nine million, nine hundred and ninety-nine thousand, nine hundred and ninety-seven other persons what they should see.

Any censor must necessarily be influenced by his own prejudices and preconceptions and standards of taste and who is to say that those prejudices and preconceptions and standards of taste are yours or those of the majority of our citizens? Censorship, on any premise, is arbitrary, despotic and flatly opposed to the American conception of government, which was founded to obtain and insure freedom and expansion of thought and expression; and certainly nothing could be more surely destructive to artistic development than the placing of a policeman at the elbow of novelists, poets, dramatists and producers of motion pictures.

Examples of Censorship

Let us look for a minute at some of the rules of conduct under which censor boards in various states where censorship prevails operate. In Kansas the board announces that it has no set standards, but in Maryland forty-six separate and distinct rules are set for eliminations.

In New York we find the following statement issued by the Motion Picture Commission:

> The Motion Picture Commission of the State of New York has not formulated any fixed rules or standards for the reviewing of pictures except those prescribed by the statute creating the Commission. . . . The Commission has deemed it wise not to set fixed standards or regulations but rather to examine each picture on its merits to determine whether the film or any portion of it violates any provision of the statute.

In Ohio another lengthy list of objections are set. One of these, for instance, is against expiation of crime by some act of physical bravery. Another, "the crime must not be attractive and the punishment must be clearly shown"; another touches on "scenes which ridicule or deprecate public officials, officers of the law, the United States Army, the United States Navy or other governmental authority, or which tend to weaken the authority of law."

Pennsylvania also has an extensive list along the same line. In Virginia the chairman states that "possibly no attempt will ever be made to put our standards into concrete, inelastic form since they prefer to judge each film on its own merits." This significant statement is added: "After all, a wholesome, moral lesson can offset the effect of many scenes which scenes in another connection would be decidedly objectionable."

What the Opponents Believe

Opponents of censorship believe that censorship in any form is a relic of intolerance and ignorance coming back

out of the night of ages—a dangerous relic too, for when censorship strikes root it grows and spreads like a fungus, appearing, toadstool-like, over night in new places. They point out that it becomes the instrument of political job holders, the plaything of petty politics, and the weapon of sinister forces. What on earth is there to hinder censors from asserting similar control over books, painting, statuary, music, and even of the newspapers to determine by official censorship what shall and shall not be given to the public, whose morals, by inference, are so weak that they must constantly be braced by some infallible super-power?

The world's progress in art, letters, science, and every other human activity has been due to educational efforts which broaden knowledge and understanding and, as finer instincts develop, evil influences tend to disappear, not because of prohibitive measures but simply because people no longer want them. When the time comes that we cannot safely govern America by law and must depend upon dictatorial direction from a few professional regulators who never give any consideration to the sure methods of religious and cultural education, to the training of individual taste, to the discipline of the mind and the development of moral conceptions, which curb unclean products because they make such business unprofitable, then will America be in a bad way indeed, and then will conscience hide its head in shame. The time to check such dangerous tendencies is right at the beginning.

Special Programs for Children

One of the loudest arguments that is used by proponents for censorship is the effect pictures have on children. But can any one say, truthfully, that there is more crime, more juvenile delinquency in a state where there is no censorship than there is in a state where there is a censorship law? Of course not. The fault basically, according to astute students of child problems, comes largely from a false teaching and misconception of the value of things. Children, they say, must not be taught not to do bad. They must be taught to do good. Artificial restraints must be thrown off, they add, and children taught the real, the inner restraints so as to be so fortified within themselves against evil. They must shun the bad, not through fear of punishment or hope of reward, but because right is right. Characters, not laws, are needed, we are told. The natural restraints of home, of love, companionship, church and school are the safe methods; in other words, *prepare the child for the path of life—not the path for the child.*

And the motion picture industry is looking out for the children. Special programs have been arranged for boys and girls and there are many, many pictures which are entirely suitable for the young to see. Every book that is written naturally is not written for children. Nor do we look to Ibsen and Shaw and O'Neil and other playwrights for theatrical entertainment for children. Supervision is exercised in these matters and the same supervision should be exercised in motion picture entertainment. It is a lazy habit which says, "Oh, let John do it."

Human thought which is back of all human progress cannot be tampered with easily. Historians tell us that when we attempt it we come to bigotry and fanaticism, to racial, religious and class prejudices, to hatred and tyrannies. Already in our country there is an effort to regulate what is taught in the school; a movement to check free inquiry. There is too ready recourse to new laws to overcome evils. Every one is ready to leave disagreeable duties to the performance of others. The

danger is that this country will become a nation of shirkers and dodgers.

Other methods are saner, surer, and more lasting than censorship. Students of the problem have put the right way in four words: Education, Selection, Personal Responsibility.

This passion, if we may call it such, for regulating and directing people to our own will has become *almost a national hobby* with us and it has a tendency to make us ridiculous in the eyes of the world. As some writer not long ago remarked, a modern Cervantes with another Don Quixote is needed to bring us to our senses. Each time one thing is found at which to level our spears. One time it is this thing and again another.

The strange part about it all is that *those who take the lead in these attacks* on motion pictures are *those who seldom, if ever, attend pictures.* Many of them go ahead on a straight line and will not admit of the possibility that whatever demand or excuse there might have been for the censoring of pictures, has been removed by the pictures themselves and that to-day motion pictures are on a plane which entitles them to respect and appreciation, not bickering and fault finding and impending laws. Almost any open-minded critic must admit that in the last few years great strides have been made in motion picture production until to-day there are literally hundreds of fine, wholesome pictures which anyone would be glad to see and glad to have his children see.

AIMING IN THE RIGHT DIRECTION

It is well to remember in considering this proposition that the producers of motion pictures are like all other human beings. They want to make the best pictures. No producer deliberately makes a bad picture. Sometimes there are mistakes, of course, but the step is in the right direction and that is what counts. Producers want liberty in what they do; not license, of course, but they do want liberty. They understand that the producer or the exhibitor of an immoral picture should be punished by law and there are laws in each of the forty-eight states and a Federal statute to take care of that.

Political censorship, however, is a mere incident in the whole situation of the motion picture industry. The American people are fundamentally against political censorship of any method of expression. That has been illustrated. The people are properly against censorship of press, of pulpit, of speech, of pictures, and the radio. The industry's concern is to make better pictures all the time. The people themselves will take care of the whole matter of censorship of movies.

Official Censorship Legislation

By Ford H. MacGregor
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COMPARED with the unprecedented development of the moving picture industry and the magnitude of the interests involved, official censorship legislation has made little progress in the United States during the last twenty-five years. There are undoubtedly many reasons why this has been true. Censorship of any kind has never been popular with the American people. We do not like to be told what we may do and what we may not do, what we may see and what we may not see. America has always championed free speech and a free press, freedom of worship, freedom of political thought, and a high degree of personal liberty. The espionage laws were unpopular even during the war. The argument that the newspapers, the magazines, the modern novel, the legitimate stage are more in need of censorship than the movies, has, whether true or not, been most effectively used to defeat the enactment of proposed censorship legislation. It is commonly known that plays, musical comedies, and revues are being staged at the present time in many of our large cities which would not be tolerated for a moment if thrown upon the screen. Most of the so-called "best sellers" must be and are deleted in parts before they are considered safe for screen production. Questions of constitutionality have frequently been raised in opposition to censorship bills, but such questions have now been quite effectively answered in adjudicated cases during the last few years.

The demands for censorship legislation have not come from movie "fans," or from those who habitually attend the moving picture theatres. In fact, probably the great majority of those who regularly attend the movies are opposed to censorship of an official character. When it is considered that at least half the population of the United States attends the moving picture theatres every week, this movie population is recognized as a powerful nucleus around which opposition to such legislation can be built. If to this widespread popular prejudice is added the enormous publicity influence of the moving picture itself, and the great financial power and ramifications of the producers, distributors and exhibitors, the limited progress of such legislation will not be so surprising. Possibly the marked improvement in the character of the films produced during the last few years has had something to do with retarding such legislation.

Federal Legislation

Congress has enacted numerous laws affecting motion picture films, but to date has passed no general censorship legislation. A section of the penal laws makes it unlawful to deposit with any common carrier for transportation in interstate commerce "any obscene, lewd, or lascivious, or any filthy book, pamphlet, picture, motion picture film, paper, letter, writing, print, or other matter of indecent character" under penalty of fine not to exceed $5000, or imprisonment not to exceed five years, or both.[1] In 1913, Congress passed a

[1] Section 245. Amended June 5, 1920, 66th Congress.

law making it unlawful to deposit in the United States mail or with any common carrier for interstate commerce, or to import into this country for public exhibition "any film, or other pictorial representation of any prize fight, or encounter of pugilists," under penalty of $1000 fine or imprisonment at hard labor for not more than a year, or both in the discretion of the court.[2] This act was held to be constitutional in 1915, in the case of *Weber* vs. *Freed*, both by the lower courts and by the United States Supreme Court.[3] In 1916, an act was passed making it unlawful to wear the uniform of the Army, Navy, or Marine Corps, or uniforms similar to them, in such a way as to bring discredit or reproach upon those branches of the United States service.[4]

In addition to these laws, various acts have been passed regulating the shipment of films, acceptance for the mails, copyright, excises and taxes, importation and similar subjects.

In the tariff schedule there is an interesting provision. Paragraph 380 of the tariff act of 1909, after fixing the duty on films, concludes with this proviso: "That all photographic films imported under this section shall be subject to such censorship as may be imposed by the Secretary of the Treasury."[5] This would apparently give the Secretary of the Treasury authority to establish a thorough-going censorship of imported films, such as exists in many other countries, but this the Secretary has never seen fit to do. The percentage of films imported, being so small, compared with the number produced here, would in any case render such censorship unimportant.

PROPOSED FEDERAL CENSORSHIP LAWS

A dozen or more bills have been introduced in Congress during the last fifteen years to provide for Federal censorship of motion picture films. With two exceptions, these bills have not received very careful consideration or been taken very seriously.

The first important one was introduced by Congressman D. M. Hughes, of Georgia, December 6, 1915.[6] It provided for the creation of a Federal Motion Picture Commission as a division of the Bureau of Education in the Department of the Interior. The commission was to be composed of five members appointed by the President for terms of six years, the chairman to receive $4000, and the other members $3500 per year. This commission was charged with the duty of examining, censoring and licensing all films before they could be admitted to interstate commerce. The expense of the commission was to be met from fees received for the licenses or certificates issued. It was to have the power to approve films as presented, to approve them with eliminations, or to reject them entirely. No standards were set forth in the bill except the provision that the commission should license every film presented unless it found that such film was

> obscene, indecent, immoral, inhuman, or depicts a bull fight, or prize fight, or is of such character that its exhibition would tend to impair the health or corrupt the morals of children or adults, or incite to crime.

This bill attracted great attention throughout the country, particularly among moving picture interests. Extended hearings were held by the Com-

[2] Section 10,416. Compiled U. S. Statutes' 1918, p. 1712.

[3] *Weber* vs. *Freed*, 224 Fed. 355; 239 U. S. 325; 36 Sup. Ct. 131.

[4] Section 1949a. Annotated Supplement, 1919, v. 1, p. 490.

[5] Section 5291. U. S. Compiled Statutes (1916).

[6] H. R. 456.

mittee on Education, of which Mr. Hughes was chairman, and exhaustive briefs were printed by both sides, but the bill was finally defeated. Several bills have since been introduced embodying the same or similar provisions, conspicuous among which was the one introduced in 1922 by Mr. Appleby of New Jersey.[7]

By far the most comprehensive and radical bill that has been proposed for Federal censorship was that introduced by Congressman Wm. D. Upshaw, of Georgia, in December, 1925.[8] This bill also provided for the creation of a Federal Motion Picture Commission as a division of the Bureau of Education in the Department of the Interior. It was to be composed of seven members, the Commissioner of Education, ex officio, and six commissioners appointed by the Secretary of the Interior from a list of eighteen persons nominated by the Commissioner of Education. Two of the commissioners were to be women. At least two of the commissioners were to be members of the legal profession, two experienced teachers with a knowledge of the psychology of youth, and at least one with experience as a member of a state or municipal board of censors. The chairman of the commission was to receive $10,000, and the other commissioners $9000 per year, and all were to serve during good behavior.

The bill gave the commission power (1) to preview and license motion picture films, (2) to examine and censor scenarios, and (3) to supervise their production in the studios. A license from the commission was made a prerequisite for copyright. The board was given authority to issue permits without inspection for scientific, educational, industrial and religious films, and for news reels, and current events films. No film could be accepted for interstate commerce unless accompanied by a license or permit from the commission. The inspection fees were fixed at $10 per reel for originals and $5 for duplicates, and from the receipts, $1,000,000 was to be appropriated annually to the Bureau of Education. The commission was also given power to inspect and censor posters and advertising material of all kinds.

Any commissioner or deputy was authorized by the bill to view films, but in case he refused a license, the applicant could demand a review by three members of the commission. Final appeal was provided to the Court of Appeals of the District of Columbia. The bill laid down minimum standards for the guidance of the commission. In addition to the general prohibitions, it listed thirteen specific prohibitions. For instance, under the bill no films could be licensed which "emphasize and exaggerate sex," "based upon white slavery," "making prominent an illicit love affair," "exhibit nakedness or persons scantily dressed," "bedroom scenes," "passionate love," "scenes which are vulgar," etc.

But the most radical provisions of the bill were of a regulatory character. It required all persons engaged in any branch of the moving picture industry, whether as producer, distributor, exhibitor, director, actor, artist, photographer, costumer, or in other capacity, to register with the commission, and gave the commission power to cancel registration for violation of its orders or regulations, or the provisions of the law. It forbade unfair and deceptive practices and gave the commission power to investigate such practices and to issue orders with reference to the same. It gave the commission power to fix rentals for films, and to fix the admission rates for theatres. It required trade associations (and trade

[7] H. R. 10577, February 22, 1922.

[8] H. R. 6233, December 21, 1925. 69th Congress, 1st Session.

associations were defined to include any association of members engaged in any branch of the business, or in any contributory industry) to file with the commission statements of their proposed activities, minutes of their meetings, names of officers and members, copies of all resolutions, and all agreements, annual reports, contracts, rates and prices, and any other information which the commission might require, and gave the commission the right to publish any such information and statistics. Finally, it gave the commission the authority, if it deemed wise, to take over as a governmental function the entire distribution of moving picture films in this country.

It is difficult to imagine Congress enacting a law of this kind, but the bill was given very careful consideration, extended hearings were held, and very exhaustive briefs and exhibits were presented to the committee. A determined effort was made to secure its passage, but it was finally defeated, as was also a much simpler bill introduced by Mr. Swoope.[9]

There is little question of the constitutional authority of Congress to enact a Federal censorship law. Through its control over interstate commerce and the mail, it has an effective means of enforcing such a law, and undoubtedly future bills will be introduced on the subject. Up to the present time, however, Congress has followed the policy of leaving official censorship of motion pictures to the states and their municipalities.

STATE LEGISLATION

More progress has been made in state censorship legislation. Up to the present time, six states have enacted laws creating state boards of censorship, two have accomplished state censorship by indirect means, and one has passed a law establishing official co-operation with, and prohibiting the exhibition of films not approved by, the National Board of Review.

The first state to provide for official state censorship was Pennsylvania. In 1911, the legislature enacted a law creating the Pennsylvania State Board of Censors,[10] although the act was not to take effect until April 1, 1913. This board is composed of three members, two men and one woman, appointed by the governor for terms of three years. They must be residents and citizens of the state, "well qualified by education and experience to act as censors under this act." No film can be sold, leased, lent, or exhibited until it has been submitted to and approved by this board of censors. A certificate "Approved by the Pennsylvania State Board of Censors" is attached to each film approved. The board is authorized to employ the necessary inspectors, clerks and stenographers to carry out the purpose of the act. A fee of $1 is charged for each reel inspected. All posters, banners and other advertising material must also be approved by the board. If the person submitting the film is dissatisfied with the decision of the inspector, he is entitled to a reexamination before two or all members of the board, and finally to an appeal to the court of common pleas. The board has established rules and regulations, and has formulated standards of censorship in accordance with which it views the films submitted. Films purely for educational, charitable, fraternal and religious purposes are exempted from the application of the act. According to the report of the board for the year 1925, some 34,383 reels were examined, of which 17,567 were approved, and 139 disapproved. In

[9] H. R. 4094, December 8, 1925. 69th Congress, 1st Session.

[10] Pennsylvania Public Laws (1911) 1067.

the others, a total of 16,677 eliminations were made.

The Pennsylvania law has served as a pattern for the other states, most of which have followed it in its general provisions. The validity of the act was promptly challenged when it went into effect in 1913, as violating the Bill of Rights and the constitutional requirement of due process, but it was sustained by the court.[11]

The second state to create a state board of censors was Ohio. In 1913, a law was passed creating the Ohio Board of Censors under the authority and supervision of the Industrial Commission.[12] The board was composed of three members appointed by the Industrial Commission and approved by the governor for terms of three years. This law continued in effect with certain amendments until the passage of the state reorganization law in 1921. Under this law the Board of Censors was abolished and its powers and duties transferred to the Division of Censorship in the Department of Education. Under this new law[13] there is an Advisory Board of Film Censorship in the Department of Education consisting of three members appointed by the governor to serve during his pleasure. This board serves without pay. The films are censored by two assistant censors with the aid and under the supervision of the Director of the Department of Education. The Division also has a chief clerk and two assistants who take care of the financial and clerical work, together with two operators and a shipping clerk.

The Ohio statute provides that

> Only such films as are, in the judgment and discretion of the board of censors, of a moral, educational, or amusing and harmless character shall be passed and approved by such board.

The board has formulated a brief but comprehensive set of standards as an aid in applying the law. The Ohio board co-operates rather closely with the representatives of the distributors both in the matter of eliminations and the reconstruction of censored films, and with parent-teacher organizations, women's clubs, and other community organizations. It has emphasized the matter of the protection of children, which undoubtedly was one of the purposes of transferring the board to the Department of Education. The board charges $1 per reel of 1000 feet for inspection.

The constitutionality of the Ohio law was also promptly challenged upon its taking effect. It was contended that it interfered with interstate commerce, that it violated the right of free speech and publication, and that it constituted a delegation of legislative authority to an administrative board. The law was sustained by the supreme court of the state and an appeal was taken to the Supreme Court of the United States. The United States Supreme Court sustained the law on all the points contended.[14]

The constitutionality of the Kansas law was also sustained by the United States Supreme Court. The first Kansas law was passed in 1913,[15] and gave the Superintendent of Public Instruction authority to pass on films. This law was also contested on the ground of violating the right of free speech, but the court denied this contention in the case of *Mutual Film Corporation* vs. *Hodge*[16] and sustained

[11] Buffalo Branch, *Mutual Film Corp.* vs. *Breitinger, 95* A 433; 250 P. A. 225.

[12] Ohio Code, sections 871–46 to 871–53.

[13] Ohio Code (1926), Section 154–47.

[14] *Mutual Film Corporation* vs. *Industrial Com.*, 35 S. Ct. 387, 236 U. S. 230.

[15] Kansas Laws, 1913, Chap. 294.

[16] *Mutual Film Corp.* vs. *Hodge*, 236 U. S. 248.

the law. In 1917, Kansas passed a law[17] creating the Kansas Board of Review, composed of three members appointed by the governor for terms of three years. In general, the law followed the main provisions of the Pennsylvania statute. The board was given power to censor both films and advertising. The original law included news reels and pictorial films and current events, but in 1925 this was amended so as to exempt news reels and the pictorial news of the day.[18] The members of the board receive $1800 per year, except the chairman, who receives $2100. The governor has the power of removal.

In the case of *Photo Play Corporation* vs. *Board of Review*,[19] the supreme court of Kansas has sustained the power of the board to determine the moral character of films. The court held that the decisions of the board were conclusive unless fraudulent or arbitrary, and that good faith and honesty would be presumed. The court has also held that the board has the power to recall films by mandamus for the purpose of re-examination.[20]

Maryland passed a censorship law in 1916.[21] The Maryland State Board of Motion Picture Censors is composed of three members appointed by the governor with the consent of the Senate for terms of three years. To insure nonpartisanship, or at least two-party representation, the Maryland law requires that at least one member of the board shall represent the party polling the second highest vote at the last prior general election. The members receive an annual salary of $2400. A fee of $2 is charged for the examination of each original film and $1 for each duplicate.

New York passed a law in 1921 creating a Motion Picture Commission[22] and Virginia one in 1922 creating the Virginia State Board of Censors.[23] Each consists of three members appointed by the governor and confirmed by the Senate, the New York term being for five years, and the Virginia term for four years. The New York commissioners receive a salary of $7500 per year. The New York law provides for both licenses and permits. Permits are issued without examination for films in use, prior to the passage of the law and for scientific and educational films and news reels. A fee of $2 per reel is charged for a permit and $3 and $2 for original and duplicate licensed films. The Virginia law contains similar provisions, the fees being $2 and $1 respectively. The Virginia law provides that when two members are viewing a film and disagree, they may call in the Superintendent of Public Instruction to cast the deciding vote.

STATE CENSORSHIP BY OTHER MEANS

The Massachusetts legislature in 1921 passed a state censorship law which was submitted to a popular referendum and defeated by a vote of two to one—553,173 against to 208,252 for, a majority against the law of 344,921. State censorship has been accomplished, however, in another way. There is a law in force relative to the observance of the Lord's Day.[24] This law forbids public entertainments on Sunday unless a license is obtained from the mayor of the city or the selectmen of the town, and these are prohibited from issuing such a license unless the program has been approved by the Commissioner of Public Safety of the

[17] Kansas Laws, 1917, p. 452.
[18] Kansas Laws, 1925, Chapter 196.
[19] *Photo Play Corp.* vs. *Board of Review*, 102 Kan. 356.
[20] *State ex rel.* vs. *Crawford*, 103 *Kans.* 76.
[21] Maryland Laws, 1916, Chapter 209.
[22] New York Laws, 1921, Chapter 715.
[23] Virginia Laws, 1922, Chapter 257.
[24] Massachusetts General Laws, Chapter 136.

Commonwealth. If, therefore, a film is to be shown anywhere in the state on Sunday, it must be submitted to and approved by the commissioner as being "in keeping with the character of the day and not inconsistent with its due observance." The commissioner has adopted general rules and standards similar to those adopted by regular state censorship boards, and films are submitted to him for approval in the same way. A fee of $1 is paid for each inspection. The Department of Public Safety publishes from time to time lists of the approved and rejected films and of the eliminations required.

Connecticut has a state law,[25] enacted in 1925, which requires the registration of all motion picture films, except scientific, educational and news films, with the state tax commissioner and the payment of a tax of $10 for the first reel of 1000 feet, and fifty cents for each additional 1000 feet. Upon registration and payment of the tax, the tax commissioner attaches a seal to the film. The law further provides that

> in the event that any film shall have been registered which the commissioner may find to be immoral, or of a character to offend the racial or religious sensibilities of any element of society, he may revoke such registration by notice in writing to any exhibitor, and in case of such revocation the amount of tax paid thereon shall be forfeited to the state.

The tax commissioner, or any person designated by him, may enter any place of business for the purpose of seeing that the provisions of the act are being complied with. The act prescribes a penalty of fine not to exceed $100, or imprisonment not to exceed sixty days, or both, for violation. An operator who runs a film, the registration of which has been revoked, loses his license as a moving picture machine operator. The law has already been sustained in the Federal court.[26]

The Connecticut law was passed primarily as a revenue measure, but, in a letter under date of September 17, the tax commissioner advises that it has not been a success from that point of view. Instead of producing a quarter of a million dollars a year in revenue, as its advocates claimed, it is producing less than one hundred thousand dollars. It has had the effect of reducing the number of films shown in the state. Once a film has been registered and the tax paid, the exhibitors try to use that film as long as possible and thus avoid the necessity of bringing in new films and paying the taxes on them. The people of the state are denied the opportunity, therefore, of seeing many films shown elsewhere. So far, no demand has been made on the tax commissioner to withdraw any film that has been registered.

Florida has a unique law in the matter of state censorship. A law, passed in 1921,[27] authorizes the governor to appoint three citizens of Florida to be members of the National Board of Review, and makes it unlawful to exhibit in the state of Florida any film that has not been approved by the National Board of Review, or by the Motion Picture Commission of the state of New York. The law exempts films used in schools, churches, fraternal organizations, and chambers of commerce, and scientific and educational films.

State censorship bills have been introduced in many other states, including Iowa, Maine, Nebraska, South Dakota, and Wisconsin, but such bills have been defeated. The legislature of Nebraska in 1921 passed a censor-

[25] Connecticut Laws, 1925, Chapter 177.

[26] 7 Fed. reports (2nd), Advanced sheets, No. 2, 2nd Circuit.

[27] Florida Laws, 1921, C. 8523 (p. 317).

ship bill but it was vetoed by Governor McKelvie. So far, no state which has established state censorship has later abandoned it, although in one or two cases the powers have been decreased. Governor Al. H. Smith, of New York, in his message to the legislature in 1923, recommended that the New York commission be abolished, but the legislature did not act in accordance with his advice.

MUNICIPAL CENSORSHIP LEGISLATION

Cities under their general police power and welfare clauses have the power to prevent the exhibition of indecent and improper motion pictures. Those in the sixteen home rule states unquestionably have the power to establish local boards of censorship. Even in those states where cities are incorporated under general charter, the grants of power are sufficiently broad to authorize cities to pass general censorship ordinances. In some states, however, as in Louisiana,[28] specific power to establish censorship has been delegated. Even where full or partial state censorship has been established, cities have the power to provide for additional local censorship, and some cities have done so. Worcester, Massachusetts, has established a Voluntary Local Board of Censors which reviews all films shown in the city. A Haverhill ordinance passed in 1921 provides that all films shall be subject to the censorship of the mayor, commissioner of public safety, and the city marshall, who shall have the power to prevent the showing of any film. Cambridge also has additional provisions for censorship. In Boston, an ordinance requires all films not passed by the National Board of Review to be approved by the mayor, police commissioner, and chief justice of the Municipal Court.

[28] Louisiana Laws, 1914, (Special Session) No. 180.

One might naturally expect that a large number of cities would have established official local censorship boards. Practically every city in the country licenses moving picture theatres. The majority of cities have ordinances which prohibit indecent shows, exhibitions, or pictures, or entertainments that tend to corrupt the public morals, or incite to crime, or that are detrimental to the public welfare. Even a large number of cities regulate the length and style of bathing suits. But comparatively few cities have enacted thoroughgoing censorship legislation. Letters were recently sent to the 248 cities in the United States with a population of 30,000 or over, asking for information concerning their methods of handling the moving picture problem. Of 150 replying, less than twenty-five reported the passage of censorship ordinances or the official inspection of films before exhibition. Probably less than 100 of the 2500 incorporated cities of 2500 population or over in the United States have provided official censorship boards or officials.

In general, one of two practices is followed by cities in the censorship of motion picture films. In the great majority of cities inspection is left to the police department; in a number of cities ordinances have been passed establishing censorship boards or moving picture censors. In a number of cities voluntary censorship plans have been very successfully carried out, but as they are unofficial those plans will not be discussed in this article.

In the majority of cities entrusting censorship to the police, the chief or officers designated by him have the authority to enter a theatre at any time to see that the ordinances are being complied with and that the films being shown are of proper character. As a rule, the films are not previewed, but

the police act in specific cases on their own initiative or upon complaint. The common standards of police officers do not, as a rule, insure very rigid censorship. In a number of cities, however, effective censorship regulations have been enacted. Probably the most effective plan of this kind has been worked out in Chicago.

The Chicago ordinance [29] makes it unlawful for any person to exhibit a moving picture film in public without first having secured a permit from the superintendent of police. Before the permit can be issued the film must be shown to the superintendent or to the inspectors appointed by him. The ordinance forbids the showing of immoral, obscene or indecent films, or films that portray depravity, criminality or lack of virtue, or that represent hanging, lynching, etc. If the superintendent refuses the permit, the applicant may appeal to the mayor and the mayor's decision is final. Special permits may be issued for exhibition to adults only. A fee of $3 for each orignal reel and $1 for each duplicate must be paid before the permit is issued. Permits must be posted at the entrance to the theatre. The ordinance carries a penalty of $50 to $100 fine. During 1925, over 18,000 permits were issued and over 7,500,000 feet of film inspected. Fifteen films were rejected and 6084 eliminations ordered. Receipts from the permits amounted to $65,000. The validity of the Chicago ordinance has been sustained in both the state and Federal courts. In the case of *Mutual Film Corp.* vs. *City of Chicago*,[30] the Federal courts held that it violated neither the first or fourteenth amendments to the Federal constitution, nor article 2 of the Illinois constitution, and the state supreme court upheld [31] the provision giving the chief of police the power to determine whether or not a picture is immoral.

Washington, D. C., Detroit, St. Louis, San Francisco, Trenton, St. Joseph, Manchester, Louisville, Kentucky, Binghampton, and many other cities charge the police with the duty of inspecting films. In many cities the work of inspection is entrusted to the policewoman. In Saint Joseph, Missouri, the ordinance provides for a Board of Appeals consisting of three members appointed by the mayor. Los Angeles enacted an ordinance in 1917 providing for the censorship of moving pictures and creating the office of Commissioner of Films,[32] but that section of the ordinance has never been carried out, and the enforcement of the ordinance is left entirely in the hands of the police. The Stockton, California, ordinance provides for the appointment by the city manager of a Committee on Censorship to inspect motion picture theatres and report violations of the censorship ordinance.[33] A Quincy, Illinois, ordinance passed in 1913 created a board of five inspectors known as Motion Picture Theatre Inspectors, whose duty it is to inspect such theatres, and when necessary to require the preshowing of films.[34]

The city of Birmingham, Alabama, passed an ordinance in 1921 regulating amusements, including motion pictures, and creating the office of City Amusement Inspector. It is the duty of this inspector to see that the provisions of the ordinance are enforced. This ordinance follows in general the Boston plan. Before any film not approved by the National Board of Review can be

[29] Chicago Code, 1922, Sections 2785 to 2794.

[30] 224 Fed. 101; 139 C. C. A. 657

[31] *Block, Wolf, et al.* vs. *City of Chicago*, 239 Ill. 251.

[32] Los Angeles Ordinance No. 37, 778 (1917).

[33] Stockton Ordinance No. 863 (1923).

[34] Quincy Ordinance No. 56.

exhibited, either the film must be shown to the inspector or sufficient information given to enable the inspector to judge its character. All films must be reported to the inspector before exhibition, and all eliminations ordered by the National Board of Review or by the inspector must be made before the film can be shown in the city. Posters and advertising are also subject to the supervision of the City Amusement Inspector.[35]

MUNICIPAL CENSORSHIP BOARDS

One of the first cities to establish official local censorship was Kansas City, Missouri. An ordinance was passed in 1913[36] which created the office of Censor of Films and Pictures. The censor was appointed by the mayor and received $100 per month. Under this ordinance no film can be exhibited until it has been approved by the censor or by a board of censors recognized by him. Upon request or application the censor must examine any film submitted and, if suitable for exhibition, issue a certificate of approval. The ordinance provided for a Board of Appeals consisting of three members appointed by the mayor to serve without pay. In addition to a fine of not to exceed $500, the license of any exhibitor can be revoked for violation. With slight modification, this ordinance is still in force. The censor is now under civil service and operates in connection with the Recreation Department of the Board of Public Welfare.

Seattle passed an ordinance in 1915[37] creating an advisory committee of nine members appointed by the mayor to enforce its censorship ordinance. This ordinance made it unlawful to exhibit any film not passed by the National Board of Review or by this advisory committee, or to show any film without making the eliminations ordered. The advisory committee was also authorized to demand a preshowing of any film, even though passed by the National Board, if it had reason to believe the film objectionable for exhibition in the city of Seattle.

The same year, the city of Houston, Texas, passed an ordinance creating a Board of Censors consisting of eleven "discreet persons," appointed by the mayor and approved by the council, to censor not only moving pictures, but vaudeville and other entertainments. The members of the board serve without pay, except the secretary. Any three members constitute a quorum, except that in cases of appeal from decisions of the secretary, the secretary does not sit as a member. The secretary acts as the city censor, and does all of the viewing, the board acting as a board of appeal. It is made the duty of the secretary to visit all places of amusement, so far as possible, daily and see that the censorship ordinance is enforced. All violations are reported to the Board of Censors. A permit is required for each film before exhibition. Apparently the plan has worked successfully.

A Spokane ordinance passed in 1916 creates the office of city censor which is held by the commissioner of public affairs. The censor has all the ordinary powers of a moving picture censor and has supervision over all theatres and places of amusement. Preshowing is not required unless demanded by the censor, but in advance of the exhibition of any film, notice must be filed with the censor giving the name of the film, the manufacturer, time and place of showing, and descriptive matter showing the general character of the picture. An appeal from the decision of the censor is given to the city council.

[35] Birmingham Ordinance No. 749–C.
[36] Kansas City Ordinance 15883.
[37] Seattle Ordinance No. 34790.

Green Bay, Wisconsin, created a Board of Censors in 1917 consisting of five members appointed by the city commission, and in 1921, Memphis, Tennessee, established one consisting of three members elected by the City Board of Commissioners. Oak Park, Illinois, has an ordinance creating a Moving Picture Censor Board and requiring permits for each film. Pasadena, California, created a Board of Censorship in 1914, but in 1922 passed a new ordinance creating a Board of Review, consisting of three members appointed by the city manager and paid annual salaries. The board previews all films in the city before exhibition. In 1922, Wichita Falls, Texas, created the positions of Censors of Commercial Amusements and a Board of Appeals, both appointed by the mayor and confirmed by the council. The censors are paid officials, but the Board serves without pay. Previewing is required when demanded by the censors. The censors are also given the powers of a police officer.

One of the most recent and most comprehensive censorship ordinances was passed in 1923 by the city of Portland, Oregon.[38] It provides for a Board of Motion Picture censors, and film inspectors, previous notice and previewing of films, sets forth the standards of censorship, procedure, and rather stringent penalties. The Board of Censors is a board of appeal and is appointed in a novel way. The theatre interests nominate three persons from which the city council appoints one, the council selects another member at large, and these two select the third. These members are selected annually. The board is given very broad powers and is apparently working out satisfactorily.

Milwaukee has a semi-official censorship board of citizen members appointed by the mayor. No ordinance has been passed to give it official status, but the city pays the salary of the secretary of the board, who is the censoring official. The board acts as a board of appeal.

[38] Portland Ordinance No. 42790.

CENSORSHIP ABROAD

Official censorship is more common abroad than in this country, possibly because government regulation in general is more common. England has had censorship of the theatre for two hundred years, but no governmental censorship of motion pictures has been established. In 1913, the Board of Film Censors was established by the motion picture interests. This consists of five members, and corresponds in a general way to our National Board of Review, although its association with the government is much closer. The present president of the board is a member of Parliament, and its work is carried on in close co-operation with the Home Office. A very detailed set of standards has been formulated by the British board. Many English cities, like Manchester and Liverpool, also have strict regulations relative to the attendance of children and minors. Nearly all of the Canadian provinces have the authority to establish either censors or boards of censorship. Germany, as might be expected, had strict censorship before the war, and has re-established it since then. The Berlin police regulations are particularly strict. Government censors in Norway inspect all films before they are exhibited to the public. Turkey has a very strict religious censorship of films, but does not censor for other purposes. In Switzerland all films must be examined and approved by a government censor in each city or canton before they can be shown. Sometimes a fee for inspection is charged and sometimes not.

In the Irish Free State films are censored by an official censor appointed by the Minister of Home Affairs. Ireland also has an appeal board consisting of nine commissioners.

And official censorship is not limited to European countries. Australia has a system of government censorship and all films must be approved before shown. New Zealand has had official censorship for years under the direction of the Minister of Internal Affairs. The minister recently issued instructions making the moral censorship more severe. Japan has a national censorship system. A censorship board is attached to the police department in every prefecture, and operates under the general direction of the Imperial Department of the Interior. Rio de Janeiro, Bengal and Calcutta, India, Java, Syria, Chile, Honduras, Costa Rica, all have government censorship of moving picture films. In the latter two, the censorship board is composed of a federal representative, a representative of the city, and a head of a family. Esthonia requires all imported films to be accompanied by a censorship certificate of the country of origin. In Guatemala films must be approved by delegates appointed by the Minister of Government and Justice.

In addition to censorship, the practice is growing in many foreign countries, particularly those in which films are being produced, of limiting the number of foreign films approved in order to encourage the exhibition of domestic films.

The Work of The National Board of Review

By Wilton A. Barrett
Executive Secretary, National Board of Review of Motion Pictures

THE National Board of Review of Motion Pictures, 70 Fifth Avenue, New York City, is a trained, volunteer, disinterested citizen organization, composed of upward of three hundred people reviewing films in New York City before they are released for general exhibition to the public, with associate, advisory members and affiliated citizen groups in many localities throughout the country. The National Board is opposed to legal censorship and in favor of the constructive method of selecting the better pictures, publishing classified lists of, and information about them, and building up audiences and support for them through the work of community groups, in order that the producers may be encouraged to make the finest pictures and exhibitors to show them, and the people in general helped to a response to the best that the screen has to offer. This places the emphasis on making the public conscious of its taste in, and giving it a voice in the selection of its entertainment.

Background and Tendencies Leading to Creation

In order to understand the reason for the National Board's creation almost two decades ago, something of the historical background and forces at work pertaining to the new medium of the motion picture and the public's reaction to it at that time should be briefly recounted. It must first be kept in mind that the Board in its origin was a tentative answer to a question which was agitating in an increasing measure individuals and groups all over the country, who, deeming the films to be an unruly horse dangerous to society at large, were seeking some kind of harness for it. This was proved at the outset, as soon as the Board was organized, for groups and individuals all over the country who had become concerned with the problem, as well as a number of public officials charged with the regulation of public amusement in their several towns and cities who were in a quandary as to how to regulate the films, began to seek the advice and help of the Board, and in many instances either affiliated with it or, as in the case of some cities, became correspondents and co-operatives, a state of affairs existing to-day.

Thus, the Board was a kind of crystalization of a thought and a movement, both of which had become coexistent and countrywide. To explain the situation further, the following facts of paramount importance must be considered in reaching a just conclusion regarding both the moral character of the films and some of the extreme criticisms that have been voiced. The Puritans, on the one hand, had found as an object for their fears and intolerances a new kind of devil-machine such as the printing press had at one time appeared to them to be. The professional reformers, on the other, had discovered a fresh evil to inveigh against with great possibilities of publicity for themselves and additional justification for their jobs and the rendering up to them of salaries for the blessed work of purifying and saving the world. From a

third group, that composed of perfectly sincere people intent on possessing a wholesome thrilling entertainment for their children and themselves such as a wise, legitimate development of the screen would give, were agitated by the tendency of the films, as they were then in some cases being produced by irresponsible, calloused and money-seeking interests, to pander to the tastes of the low-minded, the morbid, and the seekers of the lurid and sensational.

Arrayed against these three classes, organized for warfare in the case of the paid reform element, on whose protest politicians were already casting appraising eyes, was that vast army of the common people, among whom were the toilers, the submerged, the life-wearied, defeated and starved, who had found, in the little nickelodeons where the magic screen with its moving shadows was hung, food for their spiritual hunger and a blessed means of recreation, and above all a channel through which to approach and reach for an hour a land of romantic fancy and thus satisfy their dreams. The poor man had found, in other words, his theatre, he could have it for a nickle or a dime; and it is to be feared that the privileged in life were beginning to see a menace to their safety and their monopoly of more expensive entertainment and to resent this encroachment on their domain of control and enjoyment of the arts. For the motion picture in its humble temple bore unmistakable signs of being art, what kind no one yet knew, but at least it was a powerful magnet and a novel, entrancing and far-reaching form of expression, a purveyor of ideas and symbols and secrets. It could tell a story, and that story might well get to the point, indeed had arrived at it, where it could narrate facts to the great majority and offer suggestions which the jealous minority did not intend, as it never has intended, the humble servants of humanity and an exploiting civilization to know.

The first need, then, on the part of liberal, socially minded people, as well as of narrow purists and members of the aristocracy of ignorance, prejudice and suppression, seemed to be some sort of regulation. The screen, in short, had become feared by those who had cause to fear for themselves and others, was regarded askance with bewilderment and misgivings by the intelligent forces desiring to think wisely and constructively about the social welfare, and was generally misunderstood by all except the masses, whom the motion picture had wooed and won with a conjuring mysterious and wonderful. Light was wanted and the lens brought to bear was bound to be that of the censor, focused by the old theory of protecting society's morals. It was the first answer that came to hand—the short cut to an end and purpose little understood, which society has always taken when confronted with a new, confounding and seemingly dangerous problem.

It was only natural, when the censorship idea was springing up everywhere, that it should find expression in a great center like New York City, already the control and distribution pivot of motion pictures, even among those persons most American in principle and jealous of our liberty, sincerely interested in achieving the greatest good for the greatest number and best experienced in public and private work of a social service nature, and especially by the group of influential, public-spirited people first called to attack the problem and indeed asked to do so and soon co-operated with by leading forces in the production and exhibition field of motion pictures. For also among leaders in the motion

picture industry itself was to be found the honest conviction, based on plenty of self-evident fact, that unless some means were found to prevent the unscrupulous ones from exploiting unwisely and dangerously for immediate selfish gains the great new medium of expression, the present and future of the whole industry and art would be seriously jeopardized. From the first, however, as far as the National Board was concerned, censorship never appeared as more than a temporary devise, a check-rein which would soon serve to teach the horse to keep its own head up. From the first the National Board started to devise a constructive scheme compatible with democratic principles, and from the first it made every effort to take cognizance of the fine, true pictures and to publish information about them to all who came to it or whom it could reach. It also saw that the motion picture in its highest achievements would be a form of adult expression, and that the problems of suitable pictures for children was a separate one, dependent in part on parental responsibility and in part on supplying separate programs of children's pictures for juvenile use under proper auspices. The lists of special pictures which the Board almost from the first began to issue, and the practice in its review work of distinguishing between pictures suitable for the mature general public and for juvenile audiences, is proof of the Board's progressive and helpful intent even at its inception.

CREATION OF THE NATIONAL BOARD

Under the name, then, of the National Board of Censorship, the National Board was organized in March, 1909, by the People's Institute of New York City, of which the late Charles Sprague Smith was founder and director.

The local situation, out of which the National Board immediately originated, was one in which the then mayor of New York City, Mayor McClellan, had closed the motion picture theatres of that city because of the alleged conditions in the theatres themselves and the alleged character of some of the films exhibited therein. Both the patrons and, as has been suggested, the exhibitors and leading producers were in a quandary. As a citizen bureau of social research and activity, the People's Institute felt itself justified in trying a solution, believing as it did that the motion picture was the great, new medium of expression of untold potentialities as a recreative, educational and artistic force, which an increasing number of foresighted people all over the country were declaring it to be, and that it must be protected as such from any ill-advised effort to hamper its growth or smother it before it could confer its benefits on the American people.

The National Board was not created by the motion picture industry, is not and never has been controlled by the motion picture industry, and is distinct in its operation and the conduct of its financial affairs from any organization which at any time has been created by, or has acted for, the industry. On the other hand, the Board has always been willing to co-operate with any agency in or outside of the motion picture industry, holding out possibilities or appearing to be valuable agencies for the proper furtherance of its own work and aims;—namely, those entailed in bringing help, encouragement, and, wherever possible, guidance to the motion picture in developing its possibilities and achieving its future as a great medium of expression.

The group of people organized by the People's Institute was gathered

together from among the foremost local leaders in social endeavor of various kinds, representing the various prominent social service organizations in the field with headquarters in New York City. Among this group were people who were interested in the arts and in creative endeavor. Many of this original group are still interested or active in the affairs of the Board in the various aspects of its work—with its review group, its Better Films National Council, its Committee on Exceptional Photoplays, its General Committee and its Executive Committee.

First Purposes and Discoveries

The National Board's first purpose was the pre-publicity inspection of films, which the producers agreed to submit to its members. A mutual agreement was reached that when the Board, as a result of this inspection, asked for changes in part or total condemnation of films, the producers would abide by its decisions, with the right to appeal to the Board's General Committee in cases where they believed the decisions were unjustified, the opinion of this General Committee to be final and binding on the companies.

By the time the late Mayor Gaynor of New York City, who had been elected following Mayor McClellan, issued his classic brief upholding a free screen in behalf of the free institutions of the American people, which accompanied his veto of an ordinance to set up a censorship of the screen in New York City, the National Board had discovered facts for itself further destructive of the theory of censorship. It had discovered that among the most intelligent people and between people of equal moral feeling and rectitude, there was a profound difference of opinion as to the moral tone of pictures, as to what should and should not be deleted, as to what should and should not be condemned in entirety and hidden from the public view. This confusion was reflected in the minds of affiliated groups and municipal officials having control of public amusement in the several localities which by now were co-operating with the National Board in accepting and enforcing its judgments on pictures intended to be shown in these communities and municipalities. With Mayor Gaynor, the Board's leading members were contending that censorship, temporary or permanent, would not work; that it was a fallacy in its operation, being unable to cure those ills, real or imaginary, that it was supposed to cope with and overcome; that it was un-American in principle and that the very name of "censorship" was opprobrious to the mind and best interests of the masses of American citizens and not definitive of the work the Board was really concerned with and should, if its work was to be on a constructive plane, perform in the future:—that work being the improvement of motion pictures, morally, educationally and artistically, through the gradual awakening of the consciences of motion picture patrons, producers and users to the finer elements to be found in the the screen, as well as a stimulating of responsiveness to be expected, following on the discovery and estimate of those elements.

Therefore, the original control body, the founders of the National Board, changed its name to the National Board of Review of Motion Pictures, as being one more accurately descriptive of its work and its purpose—a name which accurately describes that work and purpose as both have expanded and progressed.

This leads to a consideration of its

Better Films National Council, the department group affiliated in the field with various citizen and public welfare bodies carrying on the work of the Better Films movements, as formulated and understood by the policies and practices of the National Board of Review.

"SELECTION NOT CENSORSHIP"

Around the philosophy of "Selection Not Censorship" has been built the work of the Better Films National Council, formerly the National Committee for Better Films. Its function is to both liberate and formulate thought regarding motion pictures, their uses and possibilities, and the best way in which to achieve a free screen of a most desirable kind. It seeks to accomplish this by furnishing a leadership which places at the disposal of all individuals and groups working in a constructive way advance information regarding the better films and exceptional films, which information is conveyed through correspondence, by the issuance of a weekly bulletin and special lists, and through the monthly service of *The National Board of Review Magazine.* This is done, as has been said, in order that, in their several communities, these groups, organizations and individuals may help build up patronage for such pictures both at the box-office and through special program and community use, thus emphasizing their existence and availibility, with the aim of creating a popular demand for the best in screen entertainment, and by so doing encourage, through their widespread exhibition, the production of such films. Taken together with the encouragement of children's matinées where programs, properly supervised, of pictures suitable for juvenile audiences and selected from lists carefully compiled from selections made by the review groups of the National Board, are presented, this is proving a sound constructive work, affording flexibility of audience use of pictures and, where children are concerned, placing the emphasis on parental responsibility—an activity altogether which is achieving results in a way compatible with American democratic institutions and with every consideration of the voice of the people regarding their legitimate entertainment.

The Better Films National Council, representing a growth in successive stages respectively from the Board's early Committee on Children's Pictures and Programs, the Committee on Children's Pictures and Programs organized in June, 1916, and the National Committee for Better Films, founded later in the same year, is constructed, then, to gather and demonstrate facts and information regarding selected types of motion pictures; to select, classify and list films from all sources, while having nothing to do with their commercial exploitation; to stimulate the production and use of selected pictures and the formation of such local committees and associations as should operate in harmony with its policies and those of the National Board for the purpose of endorsing and creating support of such films and selected pictures in their own locality.

It is this work that the Better Films National Council of the National Board is carrying out, with the additional medium of the Motion Picture Study Club plan, a formulation of concrete activity designed to be exercised concordantly and in unison by any group in the country in sympathy with the National Board's ideals and methods.

The Better Films National Council has a central administrative committee in New York City functioning under the Executive Committee of the National

Board and composed of volunteer Board members. This committee numbers about twenty people—educators, ministers and officials of various social, civic, patriotic and other welfare organizations, most of them national. The Council as a whole, besides the executive board, is composed of forty-five councillors, residing in various states; affiliated Better Films committees in many cities, and co-operating and associate members in approximately one hundred and seventy cities, in practically every state, with correspondents in Canada, New Zealand, Hawaii, Japan, France and England.

Associate and co-operating dues-paying membership is open to all. In these groups are the people who are making actual constant use of the publications and bulletin service of the National Board which are furnished to such members.

Selection of the better films are made by the review groups of the National Board according to special standards of selection, evolved through study and experience of the preferences of American audiences on the subject of different types of films, which they consider entertaining and wholesome.

EXCEPTIONAL PHOTOPLAYS COMMITTEE

As pictures have reached toward an artistic expression, the need of selection here and the circulation of critical appraisal have also arisen. In 1920 the National Board organized its Committee on Exceptional Photoplays, composed of critics, students and teachers of the photodrama, which published a critique of the finest films in a periodic bulletin, *Exceptional Photoplays*. Since the inauguration in March, 1926, of *The National Board of Review Magazine*, the Committee has listed and detailed its findings in a department of that publication. Through such publication medium and also that of occasional private showings of outstanding pictures to invited audiences, as well as through the effort to get community groups in schools, clubhouses or local theatres in co-operation with their exhibitors to show such films, it seeks to encourage the art of the motion picture. This committee includes people drawn from the volunteer membership of the National Board. It is the pioneer group in this activity and has formulated much of the thought and plan behind the growing Little Photoplay Theatre idea.

OTHER COMMITTEES

Other committees in the National Board's organization are:

(1) The General Committee—a body evolved out of the original group organized in 1909 by Charles Sprague Smith, the first director of the People's Institute. It is the appeal committee of the National Board to which policies are referred and to which decisions of the Review Committee regarding pictures may be carried either by the producers or by the Review Committee itself. It also meets in any advisory capacity with the Committee on Exceptional Photoplays. The General Committee numbers twenty-five members.

(2) The Executive Committee—composed of members of the General Committee, the directing body of the National Board, is charged with the formulating of policies, the election of members, the expenditure of funds, and the supervision of all administrative affairs. It is composed of seven members.

(3) The Membership Committee—which supervises the membership list, regulates the routine of membership matters, and recommends the names

of proposed new members to the consideration of the Executive Committee. It is composed of seven members.

(4) The Review Committee—the large group of two hundred and fifty members carrying on the actual work of reviewing the films. It is divided into sub-groups which meet per schedule during each week, in the projection rooms of the various motion picture companies, to review their product.

All members of the above committees are volunteer, serving without pay and unconnected with the motion picture industry. They are enlisted from all walks of life—professional, avocational, business and private. Most of the members of the General Committee are representatives of large public welfare organizations. About two-thirds of this group are women, one-third men.

THE REVIEW COMMITTEE

The basic work of the National Board is the review of motion pictures which are submitted by the film companies producing and distributing pictures before they are released to the country at large. In this connection it may be mentioned that the Board is reviewing from ninety-eight to 100 per cent of all entertainment films, *i. e.* drama, comedy, animated cartoons, etc., exclusive of news reels, strictly scenic and educational subjects and industrial films, distributed to the public in the United States. In passing on this product the Board's review groups earnestly endeavor to reflect the attitude of the national mind of the patrons of films as to what is the most desirable type of picture. Regarding the passage of pictures, "Passed by the National Board of Review," does not necessarily mean the Board approves or recommends the picture upon which the legend appears. In all cases it means that in the opinion of the reviewing committee the picture will not have a morally subversive effect upon large numbers of persons in different sections of the country. It further means that the review committee in so passing a film has detected in it, judged in a common sense way by its probable net moral effect on an audience in a motion picture theatre, nothing that violates in part or in whole what amounts to the common law against the publication of the immoral, obscene or anything detrimental to public morality.

At the present time the review work of the Board is almost wholly concerned with the work of selection and classification. The proscription aspect of its work is one mainly of an advisory, extra-editorial nature, based on its study of the psychological reactions of motion picture audiences to what they see, and a careful research into the facts as to what can surely be considered unsafe and ill-advised in films intended for public showing. In passing upon pictures to be exhibited throughout the whole country, it is essentially careful, it should be reasserted, to keep in mind the established, ascertained difference of opinion between individuals, groups, communities and whole sections of the country, with regard to screen entertainment, which difference of opinion is fundamental in the whole problem of motion picture entertainment and such, it would seem, as to render censorship totally unequal to deal fairly both with the motion picture and with the tastes, wishes and rightful freedom of expressing their opinions of the American people. Regarding the selection and classification of the better films—the major portion of the review work—the principles followed are those derived from the Board's long study of public choice in the matter, both popular

choice and that dictated by the more critical minds of those familiar with aesthetics and the refinements of motion picture drama, technical as well as otherwise.

The section groups thus reviewing pictures meet per schedule or on call in various projection rooms of the producing and distributing companies in New York City. The members are trained and familiar with motion picture audience reaction through the retailing to them of information gathered from all sections of the country about pictures and through actual attendance and study at motion picture theatres, the latter a practice which is required of them. They represent a cross-section of the American citizenry.

Members elected to the review committee are elected for a period of six months and for every six months thereafter as long as their interest and attendance at review committee meetings are maintained, and their capability is up to the standard of the work. Attendance is maintained by the membership committee. The monthly average of attendance is about six per meeting. A probationary term of review service is demanded of each prospective member. Before his or her election is recommended by the membership committee to the executive committee, the record of each member is examined and his or her capabilities for the review work scrutinized. Members are elected by the Executive Committee.

Only the volunteer citizen members have a vote on the pictures reviewed regarding both their passibility and their selectibility. No paid secretary has a vote. The sole duty of the paid review secretaries, one of whom attends each meeting, unless, as sometimes happens, a regular review member of the Board acts as secretary, is to see that the general policy of the review work, as formulated by the executive committee, is exercised. The necessity for consistency of action in a large group of people, to the end of general efficiency and fairness, is recognized. The work of the secretaries is under constant supervision by the membership committee. Each secretary is required to make a report on each picture reviewed at meetings which that secretary has attended, incorporating the committee's action. Decisions on pictures, as to passage, selectibility and classification, are arrived at by a majority vote of the members. Reports on the action of each committee in regard to every picture are sent to the company presenting the film for review.

The object is to obtain a representative group decision on each film reviewed. When a committee is in doubt as to a fair and proper decision, or when any picture that may be seriously questioned is shown, that particular film is passed on to a second, sometimes a third or fourth group, with a report from each preceding committee to the next, until a just, fully-defined group opinion is obtained. A paid secretary, when acting in the belief that a committee is rendering a decision contrary to the principles of the review work or beyond the proper scope of the Board's action, may appeal a picture to another review group, or to the General Committee which acts as the final committee of appeal. Any member in the minority in a committee, acting to the best of his or her belief for the same reasons, has a similar privilege. Decisions are given freely without suasion, after discussion in the committee following the reviewing of the films.

The individual ballots on every picture are on file in the office of the Board and constitute the data on the basis of which all information about films is sent out. Because this infor-

mation represents a group decision of a trained nature and because decisions are made and information gathered prior to the national distribution of the films, the whole bulletin service of the Board—which is issued both weekly and monthly and which is digested monthly in the chief publication of the Board, *The National Board of Review Magazine*—is of a unique nature. It is a source to which any individual or group or public official can come for authoritative information regarding old and current motion pictures of all descriptions and suitable for all uses such as the special community showing and the special program for children. As a testimonial of the growing wholesomeness, artistic progress and entertainment caliber of the motion picture to-day, it may be of interest to state in passing that as a result of this unbiased, logical, careful, openminded work on the part of its trained review committees, during 1925 the National Board saw fit to ask for changes in but few of all the pictures submitted for review during the whole year. The fairness and wisdom of its decisions in seeking to express and interpret the thought of the American people on the subject of the vast entertainment medium in question is, with every evidence of certainty, being testified to by the sentiment of the great majority of the motion picture attending public which patronizes these pictures and brings the family along.

FINANCES

Since it has sometimes been charged that the National Board, owing to the fact that it charges the producers for reviewing their product, is the instrument of the motion picture industry, full facts should be given regarding its finances. When the National Board was established and its work was enlarging, the People's Institute, the fostering organization, had no available funds, these being used in launching its other social projects. It was the policy of the People's Institute to discover a way by which such organizations as they developed around these projects might be made self-sustaining. The one organized group of film producing companies at that time—for the independent producers were still in a nebulous stage—agreed to prorate a review charge among the individual companies of the group on the basis of three dollars and fifty cents per so-called negative reel of 1000 feet, the fund thus derived to be applied to the office expenses of the Board. The Board reviewed the product of the independent companies free of charge, feeling that it should require of the companies as little money as possible, or only as much as would finance its actual operating overhead, salaries of paid secretaries, office rent, stationery, such literature as appeared necessary, etc. It desired to render service as free of charge as possible. That is still its object. But as the independent companies, as they were called, in time developed to a stable basis with increased production of films, it was properly felt that one group should not carry the burden of the others, if they were able to meet the slender charge required by the Board.

The charge of $3.50 was then prorated to all companies submitting films to the Board on the basis of 1000 feet or less of negative film. This charge was maintained until 1919, by which time the Board had expanded and its work had developed to the point of necessitating larger funds. The Executive Committee of the Board at that time met with the producers and the result of that meeting was the increase of the review charge from $3.50 to $6.25 per 1000 feet of negative reel. That is the review charge at the present time.

At no period in its existence has the Board made a charge except against the so-called negative reel. It has never added a charge for so-called positive reels, as a member of state censor boards are permitted by law to levy. The $6.25 for each reel reviewed is the sole charge. The Board reviews only the negative or master print. The resources of the Board have thus always remained slender and insufficient for the work it could potentially do, and feels impelled to do.

In addition the Board receives a modest amount from the sale of its informational literature, its bulletin service and magazine. As the demand for this service increases, it is slowly placing the expense of this work on a self-sustaining basis apart from any funds collected on its review charge to the motion picture industry, which is its only charge to that industry. The department of the Better Films National Council is partially sustained by membership fees of two kinds—associate at two dollars per member per annum, and co-operating at $10.00 per member per annum. The fee of $1.00 is asked for each member of an affiliated, organized group under the Better Films or the Motion Picture Study Club plan. The Board is also open to donations from groups and individuals not connected with the motion picture industry.

The above constitutes the whole source of revenue of the National Board. Its expenses, such as salaries, printing, office rent, the slight travel and publicity that it engages in, are proportioned by, and paid at the direction of its executive committee, of which the chairman of the Board is the chairman, which meets monthly, formulating the Board's policies, adjusting the budget, and having absolute control of its activities. Its accounts are audited by a public accountant. All checks are signed by the treasurer and countersigned by the chairman, both members of its volunteer body.

SUMMARY—SOME FACTS AND CONVICTIONS

As a result of seventeen years of the Board's existence, a period which has in reality represented study in an experimental laboratory where changes have been watched and noted in a gathering mass of authoritative facts, it seems well to set down certain convictions which have been arrived at. Every citizen group which has attempted to deal with the problem at large has had to stand criticism often based on false assumptions, the truth not being clearly understood by angry, critical and impatient people. The failure to grasp these truths often results in imputing false motives to such organizations. The irritation manifested by individuals regarding the work of such groups usually arises from incidents in particular pictures. Thus the following type of questions is asked: Why do you do this or that? Did you mean to pass that awful picture? What have become of your standards? What can this board or group be doing anyway? How can you pose as protecting young people when you allow such films in circulation? It is somewhat ironic to consider the fact that the state legal censorship boards have been asked the same questions by the very people who are most ardent to see legal censorship implanted.

The group of individuals composing the National Board of Review has been given no arbitrary power to regulate motion pictures, nor is it desirable or conceivable. The gift of such autocratic power results in grave miscarriage of justice. Individuals mistake their pet aversions for universally accepted evil. The attitude is repugnant to the genius of democracy.

The National Board would accept such responsibility under no consideration.

There is little unanimity of conviction regarding many ethical questions which individuals think have been settled forever. This applies to speech and dress, to personal habits and social customs. One has only to go from north to south, from city to country, or from one side of the ocean to the other, to find the truth of this statement demonstrated.

The National Board is not a repressionist, nor dictatorial, nor propagandist group in the region of morals. This organization has no brief for the reform group. It takes the part of no radical coterie. It threatens neither the public nor the producers of motion pictures with the thunderbolts of Jove. It is under the influence of no church organization with its well defined moral code. It finds its rule of practice in American common sense.

It finds and interprets the fundamental, generally accepted convictions of the adult American public. It expends effort continually to learn of these convictions and is often in advance of the many by finding the reaction of the clearest thinkers. It also educates the public by defining their instinctive, but undefined, judgments.

It can only register such convictions after the people have seen pictures and formulated their own judgments on the basis of experience. Again and again it has learned that people talk glibly about things they have not seen nor analysed. This theorizing is one curse of our generation. Experience may be a "dear teacher" but it is a mighty truthful one.

It is not working to allow to be shown only pictures which are fine, wholesome or inspiring. Here is the basis of much misunderstanding. It must be insisted that motion pictures are for the common public entertainment, for which people of all classes pay voluntarily the price of admission. The wholesomeness of the play-going public of America makes this commercial entertainment profitable only when it is decent.

It is its purpose rather to exclude the degrading, the immoral, the harmful and the indecent. These phrases are the common ones in most laws. In view of the diversity of opinions, in passing pictures the National Board can take little account of "poor taste," "vulgarity," "inanity," "crudity," "over-drawing," etc. These do not present fundamental moral questions. They are questions rather pertaining to the selectibility of films on the basis of their fine merits.

Under no consideration can motion pictures, designed and produced for the entertainment of the masses, be judged and edited for young people alone. The problem of children and the motion picture must be met by the production and use of those which, in theme and treatment, are appropriate for their entertainment. Some dramas have a common human appeal for all ages alike.

This position of the National Board is supported by the best thought of this and other countries.

The Board recognizes, however, that in a unique manner the motion picture has become an entertainment for the family. In this respect it differs vitally from the appeal of the spoken drama.

It is convinced also that increasingly thought must be given by those who exhibit pictures, as well as by the public, to the interests and requirements of young people for whom the motion picture has a powerful appeal.

It is satisfied that the day is past

when people either accept or reject motion pictures as a whole, and that the time has come when various forms of selection shall be put in practice both by the public and by those who are responsible for their production and exhibition.

It holds that no restriction should be placed on the theme of photoplays. It should be recognized that the motion picture has the right to draw from life itself, and that, generally speaking, when it is at its best the photodrama is also truest to life.

Book Department

LEWISOHN, SAM A. *The New Leadership in Industry*, Pp. 229. Price, $2.00. New York: E. P. Dutton and Company, 1926.

What I have aimed to do in this volume is to suggest some new points of emphasis in the labor problem. I have not attempted an exhaustive or even a symmetrical discussion of any one phase of the subject. This I must leave to those who can devote more intensive study to its various aspects. The first essential in considering any problem, particularly in our complex modern life, is to throw things into their proper perspective.

The type of program outlined may not go as far as some advanced thinkers would like. But it means progress in the right direction. The great problem in this country is not so much to bring about refinement in human organization methods as to bring about a 'substantial alignment' of industrialists using the improved methods already developed. In other words, the problem is to bring up the laggards and to establish a good average practice.

The discussion in this book has been based on the assumption that, for the next few decades at least, there will be no radical change of the capitalist system in this country. Upon this premise, improvement towards an attainable goal in the relations between employers and employees must be worked out by successive steps, in an intensive manner. Upon the progressiveness of the employing classes, primarily, such an orderly solution of our industrial labor problem depends.

From one point of view, the factory is the melting pot of the nation. The adoption of the right methods of conducting industry and the tactful and effective supervision of employees will make the workers appreciate the importance of brains and leadership in our industrial structure. This will mean more for national stability than any artificial propaganda. There is as much opportunity for statesmanship in the industrial field as there is in the political field.

This book might have been entitled, "The Reflections and Conclusions of a Liberal Industrialist on Problems of Relationship between Employer and Employed." Mr. Lewisohn has made many contributions in sympathetic interest, in financial support, and in executive leadership to movements that were broadly designed for the improvement of the lot of man. To this list, he has by this book added a distinctive individual contribution of an intellectual character by contributing his philosophy on the one subject in which he is interested most of all.

There will be plenty of adverse criticisms of this book, as there would necessarily be of any book where an author has as frankly and courageously stated his social philosophy as has Mr. Lewisohn in *The New Leadership in Industry*. But there is small comfort in it for extremists of either type. Those (whether they be hard-boiled employers or revolutionary communists) who are convinced that they see clearly the ultimate and ideal form of human society, will not be satisfied. The insistence upon a fair hearing for capitalism will offend some and the chapters dealing with unionism and wage policies will offend those of opposite persuasion. Careful and unbiased students will find statements that they would wish to qualify. To give one example, one who would thoroughly agree that by far the largest part of the problems of industrial relations will and should be solved outside of legislative halls, could not go so far as to state that labor legislation "has no force of an affirmative nature."

But the person who brings to this book a purely negative attitude, placing emphasis upon individual things which he or she might believe differently, misses the whole point and unique contribution of the book. It set out to be a book of opinion, of philosophy. Its clear and concise style, the hard-headed and clear-thinking liberalness of its views, as well as the unique position held by Mr. Lewisohn, together make it a book that will be of first rate importance in influencing all groups, especially the managers to whom it is directed, to approach problems of employer-employe relations in a fundamental manner and with a scientific spirit. The chapters on the "Mental Hygiene of Employers," "Harmonizing Unionism and Industrial Effectiveness" and "The Modern Employers' Wage Policies" are especially stimulating and provocative of thought. One would hope that more employers who combine

practical experience, and a readable style, with philosophic detachment and a social spirit, would contribute in this way to our thinking on industrial problems.

JOSEPH H. WILLITS.

MOULTON, HAROLD G. and LEWIS, CLEONA. *The French Debt Problems*, Pp. XII, 459. Price, $2.00. New York: The Macmillan Company.

This book should be a "best seller." It is a clear, sane analysis of the distressing situation in France. Its cold clarity is in no sense due to a lack of sympathy for the predicament of the French, but is the best way to shed light on the problem and lead the way to a saner solution.

France as a country was in a favorable economic position before the war with foreign investments amounting to 45 billion francs, less 7 billion francs of debts, or a credit balance of 38 billion francs. Unfortunately many of these claims have been defaulted and some of the others have been repudiated. The French also disposed of some of their holdings by sales abroad and in addition borrowed heavily on their own account. As a result the credit balance was replaced by a net debit of 22.3 billion francs in 1919 paper values, equivalent to about 6.8 billions in 1914 purchasing power. By the end of 1924 this had become the equivalent of 110 billion paper francs at the 1924 exchange level. These debts accumulated in spite of heavy taxation before, during and since the war, the popular impression that French taxes are not heavy being a wrong one.

Year after year the deficits in the government budgets have persisted, although the public has been told over and over again that there has been a balance. Misleading and confusing budgeting methods are responsible for the misunderstanding which successive governments have not been anxious to correct. As a result the situation has become most critical. The domestic debt on November 30, 1924, was 284,250,300,000 francs (paper) and the foreign debt on the same date was 31,635,-800,000 francs (gold).

The authors of the volume argue that the way out is not to be found through the economies usually suggested. Expenses can be reduced but little. The "major operation" urged includes "an arbitrary reduction of the interest rate on the entire internal debt to a flat rate of two per cent, and the levying of a special surtax on high incomes."

Since this volume went to press events in France have moved rapidly. The deficit for 1925 was huge, amounting to perhaps five billion francs on the budget, plus an additional twelve billion francs because of the inability of the government to meet certain short term obligations falling due. The note issues of the Bank of France have grown (by August 15, 1926) to about 57 billion francs and its advances to the government have nearly reached the existing legal limit of 38,500,000,000 francs. The franc fell at one time to 1.93 cents but is at present about 2.75 cents. What the facts may be when these words are read no one can now predict.

Although the treatment by the authors is most able, the reviewer doubts the efficiency of their proposed way out. One reason for this doubt is the practical difficulty of reducing the rate of interest on the internal debt, even under a plan for compulsory refunding of all bonds maturing during the life of the plan. More important, however, is the difficulty inherent in any and every proposal. Those who stand to lose are unwilling to face the facts and agree on any workable plan. Although some such device as the ones suggested might help, they argue and hesitate and each day conditions grow worse. There is at the time of this writing no reason to believe that the problem is solvable in any ordinary sense of the word. The fall of the franc to less than two cents had a temporary and salutary effect on public opinion, but within a few weeks that effect was largely gone.

ERNEST MINOR PATTERSON.

HARRIS, G. MONTAGU. *Local Government in Many Lands*. A comparative study. Pp. 341. Price, 15 shillings. London: P. S. King and Son, Ltd.

This is a useful and dependable analysis of the local governments of the world with appropriate appraisement of their effectiveness. Local government, for the purposes

of the book, is held to include all forms of public administration within subdivision of the area of a public state, whether the administration is exercised by locally elected bodies or by state officials—a fairly broad definition. Mr. Harris is admirably qualified for the task which he has assumed. He is an expert in government in the British Ministry of Health and this particular volume is based upon the data which he obtained for the Royal Commission on Local Government, of which Lord Onslow was chairman. In general, the analysis is accurate, although the necessity for covering so large a field within comparatively so brief a space (341 pages) has made generalization essential and consequently at times open to challenge or criticism. This is inevitable under the circumstances, but it does not seriously militate against the general accuracy of the book or its usefulness.

Mr. Montague's conclusions at the end of each chapter and his concluding "summary and review" are full of interest to the student of political science. Indeed they are the most valuable, as they yield the views of an experienced and cultivated student and observer of government.

CLINTON ROGERS WOODRUFF.

TOYNBEE, ARNOLD J. *Survey of International Affairs, 1924.* Pp. xvi–528 with maps. Price, $8.50. London: Oxford Univerity Press, 1926.

Readers of Mr. Toynbee's preceding volume surveying the years 1920–23 will welcome this masterly study of 1924. They will also be pleased to know that through the generosity of Sir Daniel Stevenson, Bart., an endowment has been provided to meet the cost of preparing the annual Survey, thus putting the publication on a permanent footing. There is a brief preface by the Right Honorable H. A. L. Fisher.

Mr. Toynbee has divided his material into three parts—one on world affairs in general, a second on Europe and the third (quite short) on Tropical Africa. The compilation of fact material is exceedingly valuable and the author adds from his own remarkable historical equipment a large amount of scholarly interpretation.

A survey of the content of the volume could be little more than a summary of the Table of Contents. The reviewer will accordingly content himself with one or two general observations. First is to call attention to the fact that the author interprets his title to include very little but political occurrences, and these with only a minimum of reference to economic background. Such questions as reparation payments and Inter-Allied debts receive attention, but chiefly as a part of the political analysis. Second is the limitation of the recital. Europe receives the major part of the author's attention with a brief section on Africa. Asia and America are included only as emigration of their peoples or as their direct participation in European affairs make them of significance to Europe. Friction between Japan and China, between the United States and Mexico or between Peru and Chile are not a part of the study.

These limitations are mentioned merely to indicate the scope of the study. It is a survey, and an admirably clear and complete one, of European political developments.

ERNEST MINOR PATTERSON.

COULTER, E. MERTON. *The Civil War and Readjustment in Kentucky.* Pp. 468. Price, $3.60. Chapel Hill: University of North Carolina Press, 1926.

This is a detailed and fully documented history of Kentucky when she "waited until after the war to secede." It is final and mature beyond most of the closely comparable works. While local politics and Federal relations form the main theme, other conditions and causes receive constant and adequate recognition. The book is perhaps especially suggestive as a study of shifting public opinion. Questionable generalizations and ambiguities are mostly of minor significance.

There is, too, a distinctly readable quality, and a sense of continuity and interest, from the days when the "South, too impatient to be tolerant and too impetuous to be tactful, lost the greatest prize of the West—Kentucky," through "one disappointing surprise after another," to the period when the State "posed as the

champion of the states beset by the carpet-bagger, and carried her proscription of Union men in her own borders so far as almost to bring down reconstruction on her own head."

H. L. KING.

HOBSON, J. A. *Free-Thought in the Social Sciences.* New York: The Macmillan Company, 1926.

There is reason to think that the chief concern of social science to-day is for the scientific character of its product. Precise measurements, quantitative analyses, the statistical treatment of objective evidence, and the restriction of social theory to valid, inductive generalizations from scientifically ascertained phenomena, seem to be the order of the day. This has necessarily placed a great emphasis upon problems of method as applied to the social disciples.

In the light of these facts the present volume is a timely contribution. It is not concerned primarily with the technique of social engineering but rather with the inherent difficulties of the human mind as it seeks to apply scientific method to the study of human behavior. The author gives an illuminating discussion of the peculiar difficulties encountered in extending the frontiers of social science. Controlled experiments with the isolation of the different variables in a given situation are generally impossible. The phenomena involved are the most subtle, intangible and obscure with which science is called upon to deal. Moreover, social exploration is always coming in conflict with taboos, prejudices, and innumerable alien motives of which the investigator may be honestly unconscious. The power of these unscientific factors is increased by the subtle and obscure character of the phenomena, which makes it difficult for the scholar to be precisely checked by himself or others.

All of this has led the author to this analytical discussion of the alien factors that tend to bias scientific thought. He has discussed such questions as the "bias of metaphor," the rôle of special interest, "taboos in the social sciences" and "personal and economic biases."

He has illustrated these in the Second Part of the volume in "The Making of an Economic Science." Part Three is devoted to "Free Thought in Politics and Ethics." The author has ample confidence that free thought will be effective in bringing social sciences, and he has confidence that free thought cannot be silenced by all the special interests that will oppose its progress. This is because mankind ultimately desires it.

Accurately observing similarities and differences, building general truths out of them, fitting those truths into harmonious correlations, and so creating the architecture of a science, these processes feed the mind with a sense of creative power which grows ever stronger in the student until it becomes a passion that defies every attempt at corruption or subjection (p. 279).

It is a thoughtful suggestive volume that may be profitably read by any student of social science. However, the reviewer would suggest one criticism. He believes the statement of the difficulties of scientific method have been somewhat overdrawn. For example, there is reason to believe that some controlled experiments in social science may be effectively developed and some definite objective checks established which may on occasion present reasonably effective barriers to the influence of prejudice and passion.

ARNOLD BENNETT HALL.

DE LAGUNA, THEODORE. *The Factors of Social Evolution.* Pp. x, 362. Price, $3.00. New York: F. S. Crofts & Company, 1926.

Professor De Laguna has turned in his latest book from philosophy to sociology in the belief that "only through the study of the rise of human institutions can we free ourselves from superstition in regard to man, and attain, in our dealings with one another, to the full dignity of reason."

In the study of social evolution, the author thinks theorists have been one-sided; they have commonly restricted their attention to some one "factor." "What is called for", he believes, "is not a choice, not even a compromise, between the rival theories, but a synthesis" (vi). The aim of his book, then, is not a first-hand study of social phenomena, but a "scientific

synthesis," an assemblage of the various "factors" which have been suggested by different theorists—"geographical and racial factors," "economic materialism and social Darwinism," "intertribal conflict," etc. The result of this effort may be described as a diluted version of Todd's *Theories of Social Progress*.

The impression left by the book may be aptly described in words which the author employs in a specific instance. "But the establishment of a great number of such hypotheses falls far short of demonstrating a general sociological theory. As a matter of fact, no such unified theory exists—only a mass of speculation of all degrees of probability and plausibility, held together by vague analogies."

FREDERICK J. TEGGART.

LINDSAY, A. D. *Karl Marx's Capital; An Introductory Essay*. Pp. 128. Price, $1.50. London: Oxford University Press, 1925.

It is sometimes surprising how much of content can be packed into a very small book. This little treatise is not only a remarkably good introduction to the study of Marx's "Capital" but also is rich in clear and able exposition of the underlying philosophy of the period in which he lived. Most of the critics of Marx fail to grasp the impact of environment and for this reason often shoot wide of the mark. Mr. Lindsay contends that Marx brought together two distinct schools of thought, the Hegelian collectivists with their historical method and the Utilitarians who were individualists and their method analytical. The author does not neglect to examine familiar concepts and to explain these in the light of Marx's basic philosophical ideas. The treatment is not only appreciative but also rationally critical. To my mind the book is a little gem and should be widely read.

EVERETT W. GOODHUE.

BURTON, ERNEST RICHMOND. *Employee Representation*. Human Relation Series, edited by Henry C. Metcalf. Pp. 283. Price, $3.00. Baltimore: Williams & Wilkins Company, 1926.

An endorsement, rather than an evaluation, of employe representation is found in this volume. The reader is placed on guard in this respect by the author, although the context at times clearly indicates his position. While the sampling method is used, with a close study of a limited number of plans, no indication is given as to the number of plans covered.

Emphasis is placed on the intangible factors which are so important in any employe representation plan. The technique of plans is considered in relation to the influences which assist in bringing about effective functioning of the plan, and its integration into plant administration.

The volume makes a real contribution to this new field, and should prove helpful and enlightening to those interested in the subject from either academic or administrative viewpoints.

H. LARUE FRAIN.

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